



Strategic Leadership in Information Technology



IT Guide for Executives

World Customs Organization

Contents

Executive Summary.....	5
Chapter 1: Strategic Planning & ICT.....	6
Introduction.....	6
The Balanced Scorecard.....	6
The Strategic Objectives of Customs.....	7
ICT & the Balanced Scorecard.....	9
Different Types of Planning.....	10
Conclusion.....	11
Chapter 2: The Strategic Dimensions of ICT.....	12
Introduction.....	12
The Revised Kyoto Convention.....	13
More Effective Customs Control.....	13
More Efficient Customs Clearance.....	13
Uniform Application of Customs Law.....	13
More Efficient Revenue Collection.....	14
More Effective Data Analysis.....	14
Improved Data Quality.....	14
The Digital Customs Concept.....	14
The Digital Customs Maturity Model.....	14
Digital Customs and Implementation of the World Trade Organization Trade Facilitation Agreement (WTO TFA).....	17
WCO Instruments and Tools supporting Digital Customs.....	17
Use of International Standards.....	18
Single Window Environment.....	19
Decision-Making Responsibilities of Senior Management.....	19
Political Will.....	20
Donor Engagement.....	20
Change Management.....	21
Business Process Management.....	22
Conclusion.....	24
Chapter 3: ICT Project Management.....	25
Introduction.....	25
ICT Project Phases (Life Cycle).....	25

Phase 1: Project Planning.....	26
Phase 2: Investigation & Analysis of Existing Systems and Processes	27
Phase 3: Definition of Requirements (User System Specification)	27
Phase 4: Technical Design and Implementation of the System	28
Phase 5: Acceptance Tests	28
Phase 6: Transition.....	29
Phase 7: Operation, Support, Sustainability & System Maintenance	30
In-House Development or External Procurement?	30
The Procurement Process	31
Customer Focus	33
Conclusion.....	33
Chapter 4: ICT Governance	35
Introduction	35
Organizational Risk Management.....	35
Enterprise Architecture.....	36
Data Analysis and Data Governance	38
Data Analysis.....	38
Data Governance	38
Senior Management Role in Steering ICT Developments.....	39
Identifying Issues of Concern to Senior Management.....	40
Conclusion.....	42

Executive Summary

The Guide provides information and insights into the strategic management process concerning the use of Information & Communication Technologies (ICT) in Customs. ICT can contribute to improvements in a wide range of Customs operations, and a Customs administration must prioritize based on its strategic goals and resource constraints. Aligning strategic goals with key performance indicators (KPIs) helps in developing sound planning for an ICT strategy and an ICT framework as well as ICT projects. The Guide recommends a 'Balanced Scorecard' approach to managing ICT performance.

Critical ICT projects necessarily involve changes to Customs laws and procedures. For such projects to be implemented effectively, the senior management must assume ownership of these processes. The Guide establishes clear linkage between the crucial Customs functions outlined in the revised Kyoto Convention, including the need to follow appropriate international standards. It outlines the Digital Customs Concept in order to provide decision-makers with a better understanding of how different WCO tools and instruments could support them on the path to ICT modernization and how Digital Customs can support the implementation of specific measures of the World Trade Organization (WTO) Trade Facilitation Agreement (TFA).

Change management is critical for most of the ICT-driven developments. It ensures preparedness on the part human resources. The Guide brings out the critical role of senior management in implementing ICT driven change.

Senior executives of Customs administrations should be fully aware of risks arising from ICT. ICT projects are expensive, requiring clear financial oversight. Projects lose value when they suffer cost and time over-runs, or fail to achieve their business goals. Improper definition and faulty communication of requirements can cause wastage and spiralling of costs. Faulty design and operation of systems can be a source of risk to Customs clearance operations. Awareness of ICT security risks and the potential loss caused by ICT is also necessary. The Guide points to the need to put appropriate governance processes in place to manage these risks.

Senior Customs executives are often involved in ICT procurement decisions. In large projects, the business case is the most important management process in relation to procurement, with major consequences in case of failure. Appropriate contract and performance management processes are necessary in order to mitigate risks of contract failure and for the protection of business value for Customs.

To be sustainable and coherent, large ICT solutions must follow sound architectural principles. Major and minor procurement decisions must fit into the overall business, technology, security and data architecture. It is therefore important for administrations to develop and maintain the appropriate architectural descriptions in order to create and govern a strategic and coherent IT Enterprise Architecture, as well as to ensure cross-platform approaches and avoid isolated systems. Lastly, ICT Governance frameworks help ensure that all critical processes and functions to manage ICT exist in the organization.

Chapter 1: Strategic Planning & ICT

"If you fail to plan, you are planning to fail!"

Benjamin Franklin

Introduction

The planning process exists in all organizations, whether government or private sector. The level of sophistication and maturity can vary between organizations, but the fundamental approach is quite consistent and will be familiar to senior executives, regardless of industry or country.

Such approaches may include a generic approach based on a "Plan-Do-Check-Act" (PDCA) process that is commonly used in Quality Management systems. PDCA provides an iterative approach to enable continual improvements to take place.

At the basic level, it may involve the need by the leadership to prioritize limited resources in order to achieve organizational objectives. At the more sophisticated level, it may involve the development of a vision, strategies, plans and measurements to enable a large, complex organization to coordinate its actions to achieve the key objectives.

In essence, strategic management simply refers to "the process of creating an organizational strategy, based upon a mission and vision, and keeping the organization on course"¹. A typical strategic management process is a multi-disciplinary series of activities that involves internal, as well as external, stakeholders and will require a Customs administration to:

- Acquire an understanding of the operational context, and the key internal and external drivers and processes that can have an impact on the organization;
- Identify the key goals that need to be achieved;
- Develop effective strategic responses and operational plans that take into account the internal and external drivers and processes in order to achieve the established goals.

The Balanced Scorecard

The Balanced Scorecard (BSC) is a strategic management tool that was developed in the 1990s by Robert Kaplan and David Norton. It enables an organization to holistically organize and understand the cause-and-effect relationship of strategies, plans and results. The traditional Balanced Scorecard was targeted at private sector businesses and comprised four perspectives: "Revenue", "Customer", "Internal Processes" and "Learning & Growth". Although it was developed back in the 1990s, the BSC can still today provide important stimuli for the structuring of objectives, the establishment of decision hierarchies and the effective use of performance indicators. Furthermore, the BSC is not an isolated methodology and can be used in combination with other tools and instruments.

Subsequent implementations by non-profit and government organizations led to customizations as such organizations were not purely profit-driven, or simply found it difficult to define their "customers". In such cases, the "Revenue" perspective may be replaced with other more relevant perspectives, such as "Law Enforcement", "Trade Facilitation" or, more generically, "Regulatory Outcome", or with other perspectives relevant to the organization's vision and mission; and the

¹ WCO Development Compendium, pg. III-4

“Customer” perspective may instead be termed as the “Stakeholders” perspective, to allow for broader and more appropriate coverage of the different strategic objectives.

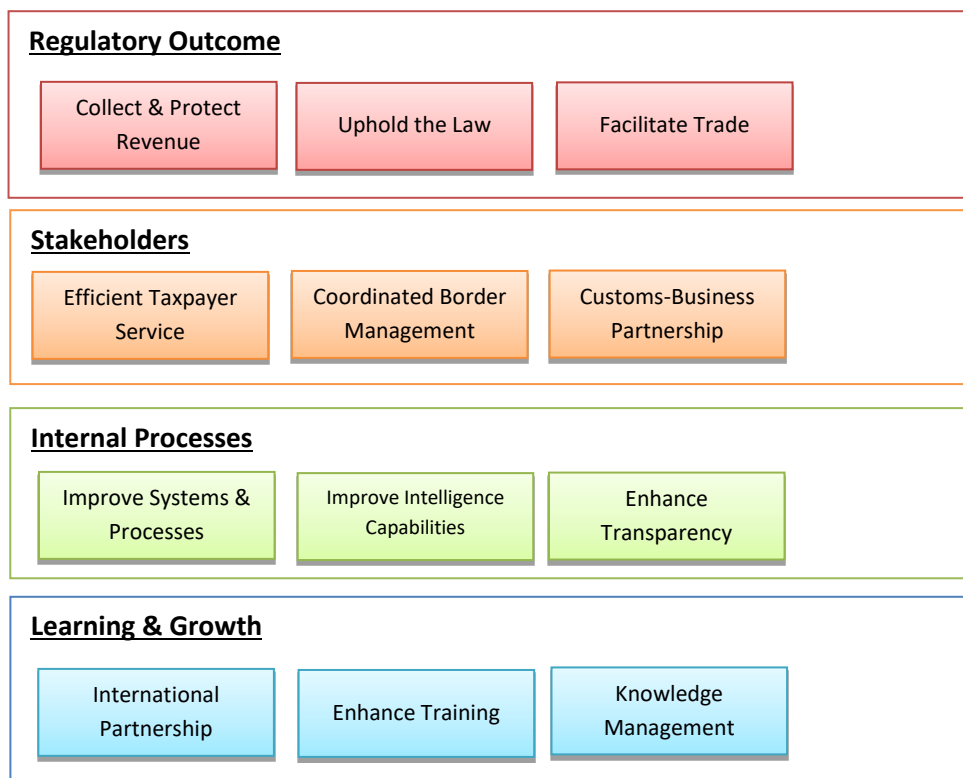


Figure 1 Sample Balanced Scorecard

The Strategic Objectives of Customs

A generic Balanced Scorecard for a Customs administration may be expressed visually as shown in Figure 1 above. In this sample, in place of the “Customer” and “Revenue” perspectives, the “Stakeholders” and “Regulatory Outcome” perspectives are used.

Each coloured rectangle represents a strategic objective that is related to the perspective. In order to ensure alignment between strategies, plans and goals, it will be necessary to translate this strategic document into working documents aimed at different levels of staff, and based on the diverse technical areas that they are involved in. An example of this cascading process is shown below:

Regulatory Outcome		
Strategic Objective	Key Performance Indicators	Plans
Collect & Protect Revenue	<ul style="list-style-type: none"> - Revenue target 	<ul style="list-style-type: none"> - Identify high-risk areas for enhanced checks - Enhanced recovery against public debtors - Introduce e-payment (1)
Uphold the Law	<ul style="list-style-type: none"> - Number of smuggling cases detected - (Long-term) reduction in number of serious smuggling cases 	<ul style="list-style-type: none"> - Increased border patrols - Improve intelligence sharing (2)

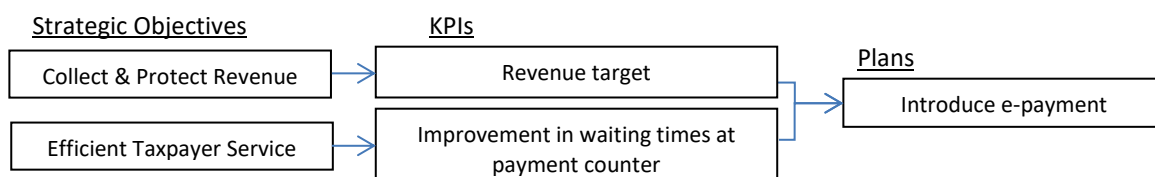
Facilitate Trade	- Improvement in clearance times	- Redeployment of manpower to improve clearance during peak periods - Improve border processes (3)
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Stakeholders		
Strategic Objective	Key Performance Indicators	Plans
Efficient Taxpayer Service	- Improvement in waiting times at payment counter	- Improve queue management - Introduce e-payment (1)
Coordinated Border Management	- Number of coordinated inspections - Number of joint operations	- Negotiate MoU with partner government agencies - Improve border processes (3) - Improve intelligence sharing (2)
Customs-Business Partnership	- Increase in participation in engagement events - Improvements in satisfaction survey	- Establish formal Customs-Business Partnership structure - Organize engagement events

The first two perspectives, “Regulatory Outcome” and “Stakeholders”, are more externally focused, requiring the formulation of plans to address a process that often involves external drivers, such as taxpayers, partner government agencies and trade associations.

It is not always necessary to have distinct Key Performance Indicators (KPIs) and action plans for each strategic objective. It should be recognized that strategic objectives interact with each other, and action plans can contribute to different strategic objectives and KPIs. Hence, it is necessary to be flexible and clear-minded about such possibilities.

As shown in the above example, “Introduce e-payment” can positively contribute to more than one strategic objective and the corresponding KPIs:



As the tables listing the plans under the different strategic objectives show, the plans numbered (1), (2), (3) and (4) recur across different strategic objectives and can contribute to different Key Performance Indicators.

Internal Processes		
Strategic Objective	Key Performance Indicators	Plans
Improve Systems & Processes	- Number of improvement projects identified	- Improve project management - Improve documentation on work instructions and standard operating procedures (4)
Improve Intelligence Capabilities	- Number of intelligence-led cases	- Reorganize intelligence functions - Improve intelligence sharing (2)

Enhance Transparency	<ul style="list-style-type: none"> - Increase in website traffic - Improvement in usefulness rating in website - Improvements in perception rankings 	<ul style="list-style-type: none"> - Enhance website - Promote self-service through public engagement
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The “Internal Processes” perspective, as the term suggests, focuses more on the internal dimensions of the organization, and the KPIs and plans will be more focused on the internal work areas of the organization that need to be improved in order to support the “Stakeholders” and “Regulatory Outcome” perspectives.

This perspective will also have a very strong influence on the “Learning & Growth Perspective”, as shown below.

Learning & Growth		
Strategic Objective	Key Performance Indicators	Plans
International Partnership in Training	<ul style="list-style-type: none"> - Conclude MoU with neighbouring Customs - Number of joint international activities 	<ul style="list-style-type: none"> - Identify potential MoU partners - Organize networking / knowledge exchange events with foreign counterparts
Enhance Training	<ul style="list-style-type: none"> - Number of training hours per officer 	<ul style="list-style-type: none"> - Implement training needs analysis and training roadmap - Undertake staff engagement to raise awareness on training
Knowledge Management	<ul style="list-style-type: none"> - Increase in intranet website traffic - Improvement in usefulness rating in intranet website 	<ul style="list-style-type: none"> - Enhance intranet to facilitate self-learning & knowledge sharing - Improve documentation on work instructions and standard operating procedures (4)

The “Learning & Growth” perspective focuses on the capacity building needs and organizational development aspects of the organization. It completes the iterative, continual improvement process by bringing focus to the most essential element of any organization: its people, as well as the systems and processes needed to empower, improve and manage them.

ICT & the Balanced Scorecard

It becomes clear by this point that there is no strategic objective specifically catered to ICT, but many of the plans formulated have an ICT dimension. They include:

- E-payment to improve revenue collection;
- Intelligence sharing with partner government agencies;
- Improving documentation of work processes;
- Website enhancements for public engagement and improving transparency;
- Intranet enhancements for improving learning and knowledge management.

Hence, while the Balanced Scorecard has not included a strategic objective that is directly relevant to ICT, ICT has become a strategic enabler for many of the organization’s strategic objectives. It is

with this in mind that we come to the obvious conclusion that ICT is a means to an end, to achieve the necessary strategic outcomes, and not an end in itself, to be done for its own sake.

It is therefore necessary for operational units to work in close collaboration with their ICT counterparts, which may include their IT division, as well as with vendors, suppliers and consultants in order to ensure that there is clear alignment between the organization's strategies and the ICT systems needed to support these strategies. Bearing in mind that Customs officials are not IT experts and are not always well equipped to identify areas in which ICT can be used to support key organizational objectives, a close partnership between Customs specialists and IT specialists can lead to better implementation of ICT projects with a view to improving organizational performance and results. In addition, ICT needs to be elevated to a strategic level so that it may fulfil its role as a strategic enabler.

Different Types of Planning

The strategic planning process is the overarching framework that provides the context for the administration's forward planning. But it is also necessary to establish specific planning processes to ensure that strategic aims are translated into action and results. This includes medium- and long-term ICT strategy planning as well as specific project planning and business continuity planning.

ICT strategy planning and the strategic ICT framework refer to the basic, medium and long-term planning and governance of ICT structures and processes. They can form part of the strategic goals of the organization as a whole or implement their strategic objectives. They include:

- Planning of the organizational structure, core processes and cross-section processes:
 - o Definition of the structure of ICT departments and their integration in or interfaces between Customs business departments
 - o Definition of the specific ICT core processes, for example processes for consultancy and development and ICT service processes (operation, support, problem and defect management)
 - o Identification of the impact of cross-section processes, such as human resource procedures or financial planning
- Architecture Management:
 - o Design of a reference and target ICT infrastructure (Enterprise Architecture Model) and definition of a concept to develop standardized hardware and software with a view to implementing the target Enterprise Architecture Model (see also Chapter 4)
- Product, Service and Portfolio Management
 - o Compilation of a catalogue of ICT products and services relating to the target Enterprise Architecture Model and aspects of quality and security management
- Planning of resources
 - o Budgeting (annual plan, perennial strategic finance plan) considering the overall financial planning of the organization
 - o Staff planning and capacity building
 - o Procurement processes (see also Chapter 3)

Project planning refers to the management of planning and control of specific projects under the Strategic Plan, so that specific system developments and reforms are tied in with the big-picture objectives of the Strategic Plan.

Planning for individual projects is needed to:

- Define the specific objectives of the project and identify constraints;
- Identify the scope and boundaries of the project to avoid overlap;
- Identify the relationship to other projects or systems to ensure coordination;
- Define tasks, responsibilities and reporting lines;
- Establish a timetable specifying what has to be done, by whom, by when, and the costs;
- Consider the transition of IT projects into line management so as to ensure the operation, support and maintenance of IT solutions.

Project planning will be covered in greater depth in Chapter 3.

Business continuity planning refers to the overall process of developing an action plan to ensure the continuation of business, should business-critical systems or facilities become unavailable. For Customs, it refers to the ability of an administration to maintain the collection of duties and taxes, the control of goods and people crossing the border, and the uninterrupted and speedy clearance of goods and people in international trade and travel.

Business continuity planning will be covered in greater depth in Chapter 4.

Conclusion

The strategic management process is important for Customs in its planning and execution of tasks. Such a process is not limited to ICT planning. It is an organization-wide activity that aims to encompass the diverse aspects of an organization's purpose for existence and the supporting activities that need to take place in order for it to undertake improvements, establish priorities and measurements for essential tasks, and ensure that the organization is well managed.

The Balanced Scorecard is one of many possible tools that can be used to develop such a strategic blueprint. By virtue of the cross-disciplinary and multi-faceted nature of any complex organization, this strategic blueprint will need to be developed with inputs from both Customs specialists and managers, as well as with expertise from supporting functions such as administration, human resources, and ICT.

This approach ensures that as senior management undertakes its strategic planning activities, it is able to understand the cause-and-effect relationship between different activities, and their different dimensions – a plan to improve processes will inevitably interact with plans to review internal processes, partnership projects with partner government agencies and trade, developments of ICT systems, human resource planning, and budgetary requirements.

Hence, it is essential to take all these things on board and integrate them into a manageable and transparent management dashboard to facilitate effective management and informed decision-making.

Chapter 2: The Strategic Dimensions of ICT

“The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency.”

Bill Gates

Introduction

In the era of the Internet of Things, cloud computing, Big Data, artificial intelligence and smartphones, ICT is redefining the trading landscape and business processes of the private sector as well as those of Customs and other border agencies. An increasing number of businesses worldwide are digitalizing their procedures in order to take advantage of economies of speed and efficiency, or to bring their production processes into line with the products and services of the future. In order to respond more effectively to the fast-evolving digital economy and to enhance facilitation measures in general, Customs and other border agencies, in the light of their national priorities, technological developments and resource availability, need to leverage ICT in their day-to-day operations.

The idea of deploying ICT in a holistic manner that is aligned to organizational strategies and objectives, so that it becomes a strategic enabler to improve performance and results, is often easier said than done. Very often, organizations fall into the trap of looking at ICT as singular systems to support specific functions, and as the default response to improve a certain process. This leads to a silo approach in ICT implementation and causes the organization’s ICT deployment to become uncoordinated, reactive and ineffective.

The significance of ICT use for Customs is suitably reflected in Chapter 7 of the General Annex to the **Revised Kyoto Convention (RKC)** and associated Guidelines. More specifically, “maximum practical use of information technology” is one of the key principles of the RKC.

In addition, building upon ongoing efforts in the area of ICT implementation in the Customs and other regulatory environments, the WCO has developed a “**Digital Customs**” concept to enable future work to be carried out in a more cohesive and sustainable manner.

The Revised Kyoto Convention

Chapter 7 of the Revised Kyoto Convention addresses the “Application of Information Technology”. In addition to this, the General Annex Guidelines for Chapter 7 refer to how the application of IT relates to other provisions in the General Annex, namely:

- 3.11, 7.2: Use of UN Layout Key and use of international standards for electronic information exchange;
- 3.18: Lodging of supporting documents by electronic means;
- 3.21: Lodging of goods declaration by electronic means;
- 6.9: Use of risk management in Customs control;
- 6.10: Evaluation of traders’ commercial systems to ensure compliance with Customs requirements;
- 7.1: Use of IT to support Customs operations;
- 1.3, 6.8, 7.3: Cooperation with the trade;
- 9.1. 9.3: Transparency of information.

This provides Customs administrations with an idea of what “quality implementation” of information technology means in the Customs context, and informs us about the strategic considerations that are required to shape ICT developments in a way that achieves the organization’s strategies and objectives.

The goal of every Customs administration is to preserve value in the international supply chain by improving effectiveness of cross-border controls so that cargo flows are uninterrupted, borders remain secure and leakages of revenue are plugged. Managers from Customs and trade understand this value in terms of effectiveness of controls and the efficiency of the supply chain. The goal of ICT is to support these efforts and assist Customs and trade in achieving the business goals by bringing to bear ICT’s rapidly growing capabilities. It may even be argued that many of these challenges cannot be tackled unless ICT is deployed.

More Effective Customs Control

An electronic declaration system provides a quantum leap in productivity and capabilities in Customs control, and the near ubiquity of these systems – that range from ASYCUDA to Single Window systems – means that they are no longer a novelty, but the norm. The availability of electronic data allows for risk management to be deployed in a more consistent and reliable way, so that shipments that meet specific risk parameters can be highlighted for further checks.

More Efficient Customs Clearance

The consistent and reliable processing of electronic declarations also provides opportunities for automation, so that routine transactions that are not flagged for further checks can be cleared immediately, while allowing officials at the border to focus on higher-risk shipments.

Uniform Application of Customs Law

By integrating regulatory requirements as automated processing rules in a Customs system, we ensure that the same types of transactions are always processed in the same way, without the subjectivity of human intervention. In this way, all trading entities benefit from a consistent and predictable regulatory process.

More Efficient Revenue Collection

An electronic system can include electronic payment functionalities to make it easier for taxpayers to pay the correct amount of duties and fees assessed. Additionally, having clear and timely information on outstanding amounts and bad debts also allows Customs to take action more quickly.

More Effective Data Analysis

Trade statistics are important to governments for economic analysis and trade policy negotiations. Businesses also benefit from having clear trade statistics for market research. Just as electronic data enables Customs to apply risk management more effectively by making electronic data available in a structured format, the same capability allows for greater ease in compiling trade statistics, and enhances business intelligence.

Improved Data Quality

By including data validation checks at the point of input, systems also ensure that only information in the correct format, or information that is cross-checked against an internal database, can be submitted. This reduces data-entry errors and prevents unvalidated information from being submitted (e.g. non-existent address or trader identifier), and ensures that the information received can be reliably used for risk management, revenue collection and statistical reporting.

The Digital Customs Concept

The Digital Customs concept, in its capacity as “A Strategic Approach to Support ICT-enabled Customs and Cross-Border Regulatory Reform through WCO Tools, Instruments and Guidelines”, is primarily aimed to serve as a conceptual framework to support Members in understanding and implementing the ICT-related tools, instruments and guidelines that have already been developed by the WCO. Given its cross-cutting nature, Digital Customs supports trade facilitation and security, fair and efficient revenue collection, protection of society, and institutional and human resource development, all of which individually and collectively contribute to improving trade facilitation and simplifying border processes, thus reducing clearance times and costs and enhancing supply chain safety and security.

Drawing on its expertise, the WCO is carrying out further work, notably from three perspectives:

- Standards development/enhancement;
- Cooperation/coordination between and among Customs and its strategic partners;
- Development of capacity and core competence within Customs.

The Digital Customs Maturity Model

Noting that not all Members have the same level of development or the same access to ICT solutions, the WCO has developed a ‘Digital Customs Maturity Model’ to provide a phased-in approach to ICT implementation.

The Maturity Model clearly recognizes that ICT implementation is a journey which is based on the national priorities, policy considerations and resource availability of each Customs administration:

Digital Customs Maturity Model

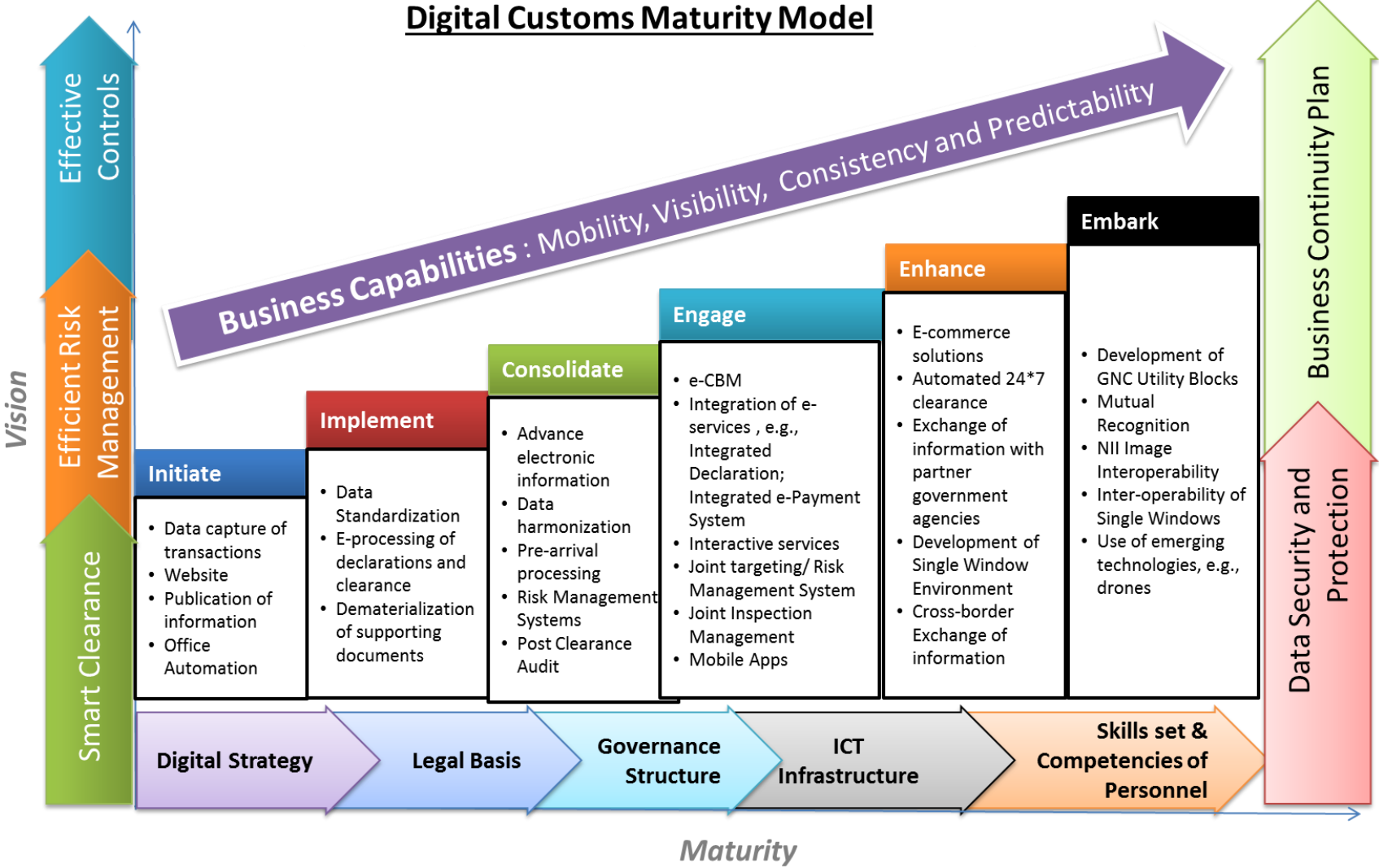


Figure 2: Digital Customs Maturity Model (1)

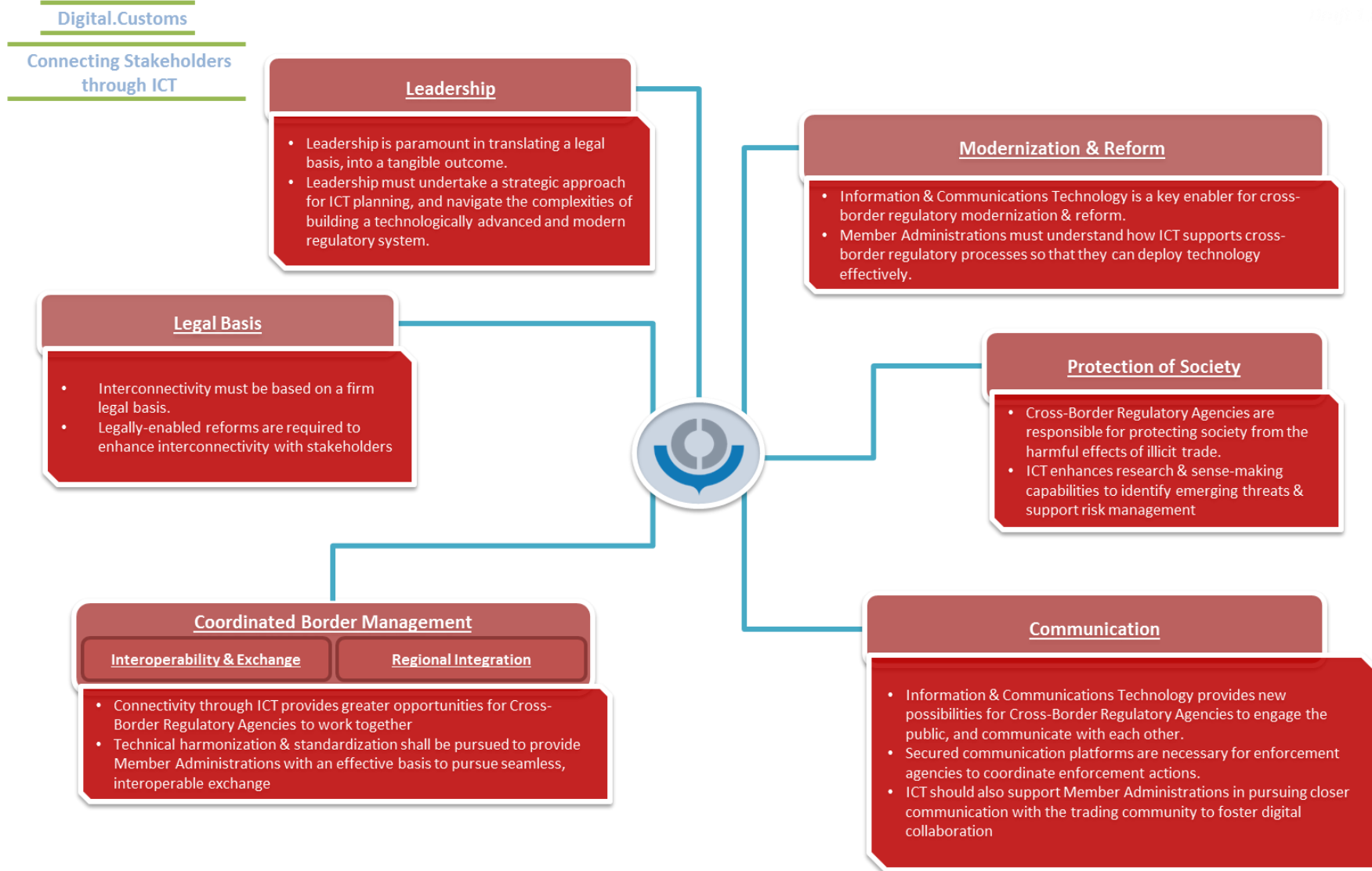


Figure 3 Digital Customs Maturity Model (2)

Digital Customs and Implementation of the World Trade Organization Trade Facilitation Agreement (WTO TFA)

Digitally-enabled Customs has the potential not only to improve efficiency and reduce trade costs but also to achieve enhanced trade facilitation. Customs automation is closely associated with the simplification of procedures. One of the core components of the WCO Digital Work Customs Plan is the ICT-enabled implementation of the WTO TFA through the use of WCO tools and instruments and associated capacity building measures.

In the light of the TFA obligations, Customs and other border agencies are actively engaged in developing new programmes and updating existing ones. The implementation of a number of TFA measures involves or depends on ICT implementation/enhancement, such as the online publication of regulatory information, enquiry points, electronic processing of declarations, pre-arrival processing, electronic payment, risk management, establishment of release times and operation of Single Window systems, which all require the use of ICT.

The implementation of the TFA measures affords an opportune moment to examine – if this has not already been done – potential opportunities for the use of ICT by adopting WCO and other international standards, and to explore the associated implications on existing business processes and systems, including IT systems and information flows. Some governments/Customs administrations might need to consider making strategic investments in ICT with a view to implementing a broad range of business programmes linked to achieving the objectives of the TFA. Others might be able to meet their business goals by making minor adjustments to their current programmes. In either case, a strategic approach to ICT would be necessary.

The WCO has carried out an analysis of the potential use of ICT and possible implications for information management with respect to each article of Section I of the TFA. This analysis captures the relevant references, provides additional commentaries for some of the articles, and aims at exploring strategic considerations on how Digital Customs can further support specific TFA measures.

The analysis is appended as Annex I to this document.

WCO Instruments and Tools supporting Digital Customs

To build and enhance digital capacities, the WCO, through its instruments and tools, is actively engaged in providing technical assistance and capacity building on ICT implementation/consolidation in several areas:

WCO Instruments and Tools Supporting Digital Customs

- **Strategic:** Strategic Plan, IT Guide for Executives, Single Window Compendium Vol 1.
- **Policy/Legal:** RKC, SAFE Framework of Standards, Data Model, Nairobi Convention, Model Bilateral Agreement on Mutual Administrative Assistance in Customs Matters, Globally Networked Customs (GNC) Feasibility Study Report, GNC Handbook, Integrated Supply Chain Management (ISCM) Guidelines
- **Operational** – RKC ICT Guidelines, Dematerialization of Supporting Documents, Coordinated Border Management Compendium, Single Window Compendium Vol 2, Supplement to Single Window Compendium, Risk Management Compendium, Unique Consignment Reference (UCR) Guidelines, Customs Enforcement Network/ National Customs Enforcement Network/ Customs Enforcement Network Communication Platform (CEN/nCEN/CENComm), Advance Cargo Information (ACI) Systems, Advance Passenger Information (API)/Passenger Name Record (PNR) Guidelines, Non-Intrusive Inspection (NII) Guidelines, Cargo Targeting System (CTS), Technology Network (TeN), Interface Public Members (IPM), Iris Application, Information & Intelligence Centre (I2C), and GNC Utility Blocks (UBs).

Figure 4: Instruments and tools supporting Digital Customs

Use of International Standards

A strong criterion of senior management decision-making in the development of ICT systems is the need to ensure that the systems developed are conformant with international standards. This includes non-technical, as well as technical, issues that need to be considered.

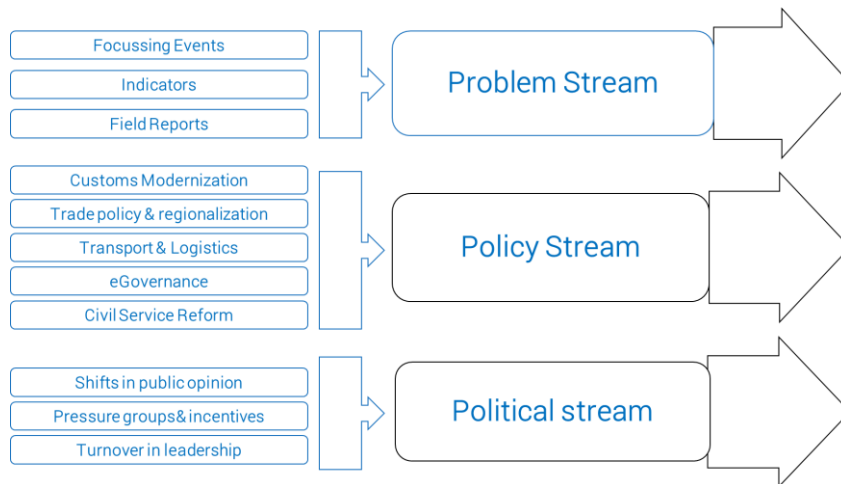
Non-technical issues include the process models, such as the Revised Kyoto Convention and the SAFE Framework of Standards, which deal with Customs procedures and supply chain security issues, respectively, as well as international conventions, such as the WTO TFA. Technical issues include the need to ensure interoperability between different government and non-government stakeholders, through the use of common technical standards.

In this connection, the **WCO Data Model** provides Customs, as well as partner government agencies, with a common language to collect, exchange and process data. The WCO Data Model is a compilation of clearly structured, harmonized, standardized and reusable sets of data definitions and electronic messages aimed at meeting the operational and legal requirements of cross-border regulatory agencies, including Customs, which are responsible for border management. It is an international standard that is developed and maintained by considering its alignment with other commonly used international data such as the United Nations Trade Data Elements Directory (UNTDDED).

By using the WCO Data Model for the design of Customs IT systems, administrations gain the assurance of semantic interoperability, i.e. the assurance that data that is collected from the private sector is consistent with international practices, and means the same thing from country to country, and thereby provides the foundation for future data harmonization with partner government agencies that is essential for the development of a Single Window environment.

Single Window Environment

Part IV of Volume 1 of the WCO Single Window Compendium on “Building a Single Window environment” provides details on multifaceted aspects that may result in the establishment of a Single Window environment in an economy. The figure below identifies three streams. The convergence of these streams may lead to a comprehensive policy development as a milestone for the successful implementation of a Single Window system.



- The Problem stream: representing operational-level indicators and information to raise awareness of issues on the ground (e.g. workload indicators, field reports and events);
- The Policy stream: representing broad themes framed in terms that policy makers are familiar with (e.g. Customs modernization, regional integration, civil service reform, e-government);
- The Political stream: representing issues that would resonate with the political elite (e.g. public opinion, pressure groups and leadership renewal).

The ability to recognize the trends and emergence of these three streams is essential in order for any senior management-level leader to mobilize and rally the support necessary to secure funding and approval, as well as a mandate for any far-reaching ICT implementation.

Decision-Making Responsibilities of Senior Management

The role of senior management in the implementation of ICT projects is very important. A challenge that often arises for the senior management official is that he or she may be required to make decisions of a very technical kind, without fully understanding the nature of the technology itself. It is a reality that while senior management is not directly involved in the technical work of developing an ICT system, senior management officials are ultimately held accountable for the success or failure of such systems due to the serious financial and other losses that can result from lapses in planning and management.

As mentioned in Chapter 1, the business of senior management is strategic management, not micro-management. Senior management needs to establish the positive environment necessary to implement the project, and the proper governance processes necessary to steer its outcomes.

Political Will

UN/CEFACT Recommendation 33, “Recommendation & Guidelines on establishing a Single Window”, highlights the importance of political will as a key factor in establishing a successful Single Window system:

The existence of strong political will on the part of both government and business to implement a Single Window is one of the most critical factors for its successful introduction. Achieving this political will requires proper dissemination of clear and impartial information on objectives, implications, benefits and possible obstacles in the establishment of the Single Window. The availability of resources to establish a Single Window is often directly related to the level of political will and commitment to the project. Establishing the necessary political will is the foundation stone upon which all the other success factors have to rest.

In fact, this holds true for all government ICT projects. As a regulatory agency, Customs is not the originator of political will. It is the implementer. Hence, it is the responsibility of Customs senior management to bring this to the attention of the higher level decision-makers at the policy level, including senior Ministry officials, as well as politicians.

Donor Engagement

The role of donors in financing Customs reforms is also an important part of senior management’s agenda. Strategic Plans and reform programmes require resources, and where the national budget is unable to provide the necessary funding, donor engagement becomes crucial in order for the planned activities to take off.

Similar to the need to rally political will, there is a need to rally donors’ interests and frame Customs reforms in ways that align with donors’ priority areas. Common issues encountered include situations where development assistance does not directly target Customs reforms, or even when it does, it does not reflect the needs of Customs services and does not take into consideration Customs inputs, because of Customs’ limited role in policy formulation at higher level.

In all of these situations, the underlying political reality is that Customs is often an unsung hero. While Customs is performing functions that are essential for trade facilitation, border security and protection of society, the importance is not well recognized by the political leadership. Hence, it is crucial that senior management plays an active role in raising awareness through their involvement in Ministry-level decision-making processes, so that Customs can be more prominently featured when donors request information from the political leadership.

This involves:

- Ensuring that Ministers receive specific information on Customs’ reform needs, so that these inputs can be communicated to donors;
- Highlighting the contributions of Customs to political priorities;
- Highlighting the achievements of Customs and improving the positioning of Customs so that it is more aligned with political priorities;
- Mobilizing support to create a positive political climate towards Customs reform.

Once that visibility has been secured, it remains necessary for Customs to make its case to donor organizations, and this is facilitated by:

- Having a clear vision, process and plan for modernization that is based on government policy, WCO diagnostic missions and recommendations from other institutions;
- Understanding donors' requirements;
- Engaging with donors to understand funding options;
- Demonstrating commitment and ownership of reform strategies;
- Establishing communication channels to derive synergies, where multiple donors are involved.

All of this groundwork will eventually need to be put to the test through a donor meeting, or a donor conference. At this stage, it will be necessary for the administration to demonstrate the necessary "follow-through" by organizing the event in a manner that demonstrates political and stakeholder support, and addresses the requirements of the donor, as well as of national policy. This will involve event management that includes promotional activities, event logistics, and invitation of keynote speakers, leading to the successful delivery of a donor engagement event. The measure of success, ultimately, will be the support of the political leadership, and the tangible support of donor organizations for the administration's reform agenda.

Change Management

The implementation of ICT systems cannot be divorced from the broader need to manage change. An ICT system is an artefact – a man-made construct that serves as a resource multiplier and enabler for greater efficiency and effectiveness in Customs functions. Ultimately, it is necessary for human beings to harness the IT tools to do the job well. This is a process that requires deliberate and extensive planning and management inputs.

The Revised Kyoto Convention Guidelines on Application of Information and Communication Technology provide a 10-step process for change management that senior management officials should reference to guide their ICT planning and implementation journey:

Step 1: Focus on the business process and not on the function

Processes illustrate the perspective through which the organization interacts with its clients and provide a more holistic approach.

Step 2: Development of a process profile

Without proper documentation, a process cannot be properly understood. A process that is not well understood cannot be measured, and cannot be improved upon. Proper documentation and analysis will identify opportunities for streamlining and improvements.

Step 3: Process mapping

Processes evolve over time, based on changes in legislation, ground conditions, or the introduction of new IT systems. An officer is often only involved in one step of the process, and has limited awareness of the upstream and downstream interactions of his work. By mapping processes, senior management, as well as the operational level officer, acquire a new perspective to their work by understanding the "bigger picture".

Step 4: Measuring processes

To support the development of process profiles and process mapping, it is necessary to measure the process so that Customs can determine the current resource required, time taken, and performance

level of the process, and set quantifiable Key Performance Indicators to drive improvements. This should be integrated into the organization's Balanced Scorecard so that it becomes the way in which senior management can influence behaviour, as well as the results on the ground.

Step 5: Learning from others

Ideas or proven processes that have been implemented by other Customs administrations can provide valuable information and save time, and allow us to learn from the experience of others. This requires an administration to develop both as an inquisitive, learning organization, and as a culture that is open-minded in its efforts to learn from others and adapt these lessons to its domestic context.

Step 6: Process redesign

Using the information from the previous 5 steps, Customs can map out new processes, eliminating duplications and inefficiencies, and build a new process to achieve improvements.

Step 7: Balance processes and technology

The benefits and limitations of technology should be clearly recognized so that technology becomes the efficiency multiplier for a process. Some processes must be automated in order to achieve the consistency and quality implementation necessary for improvements, while human judgment remains necessary in certain cases where automation can lead to acceptable risks.

Step 8: Manage process change

Process changes must be prioritized. It is not possible to change everything at the same time due to resource and capability constraints. Change must be focused on the areas where there is the most readiness, and where it would make sufficient impact.

Step 9: Prepare people (staff and clients) for change

People are inherently resistant to change. Without proper communication, they will feel threatened, insecure and unwilling to contribute to the change. It is necessary to win "hearts", as well as "minds", and to involve all relevant parties, so that they will recognize the benefits and share in the ownership to bring about the change.

Step 10: Continue process improvement

Business process re-engineering is an iterative process. By formulating processes and structures to guide the previous 9 steps, senior management can build a sustainable process for continual improvement. There are no perfect systems or implementations. Sustained effort is necessary to ensure that ICT systems meet user requirements, new functions are added and obsolete functions are removed.

Business Process Management

Business Process Management (BPM) is a systematic approach used to identify, evaluate and improve business processes. In this context, Business Process Modelling specifically involves representing processes for the purpose of visualization, analysis and improvement. Business Process Management and Business Process Modelling have become powerful instruments in support of understanding, harmonization and automation of Customs processes.

The BPM approach enables a clear visualization of the processes provided for by the Customs legal framework. In that perspective, it affords the opportunity to verify the efficiency and soundness of

the processes as well as their alignment with the strategic goals and the identification of possible improvements, and rationalisation or automation requirements.

BPM Methodology

BPM activities should be based on a clear, defined methodology that follows a hierarchical approach, i.e. the degree of detail of the process models, the modelling perspective and the intended audience have to be defined for each level in the hierarchy. The levels should be linked top down/bottom up and be based one on top of the other (vertical perspective). Within each level, different views can be selected, for example process view, data view, function view or organization view (horizontal perspective).

The following diagram shows an example of a four-level BPM hierarchy:

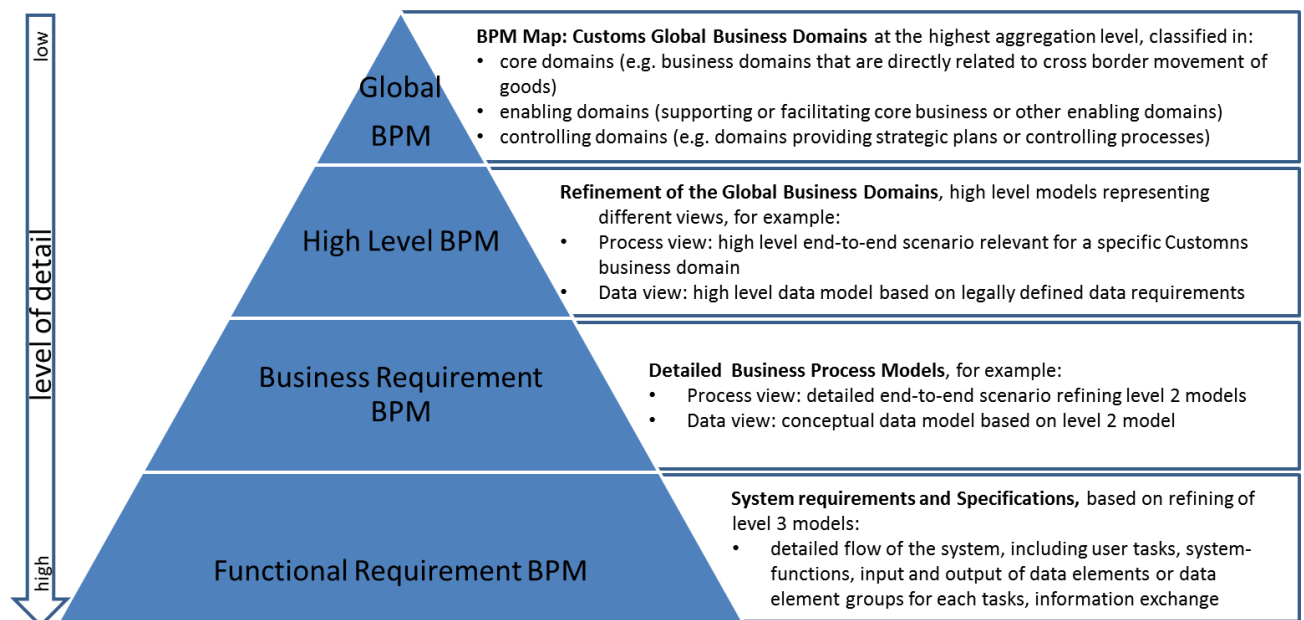


Figure 5: Example of four-level BPM hierarchy

Impact on ICT Projects/Project Life Cycle

In terms of ICT implementation, the BPM approach is a valuable instrument to identify and define requirements for the development of new IT solutions. Models that were created to visualize the target processes provide an ideal basis for a process-oriented requirement analysis during the development of an IT system. The process – models equipped with additional processes – and data information can provide a clear understanding of legal/business requirements and functional specifications.

BPM Governance

Modelling conventions should be defined for BPM activities at all levels to ensure standardized and consistent modelling work. Furthermore, procedures for quality assurance, approval and change management are needed for handling subsequent updates of the defined models.

The person responsible for the BPM initiative is the “Chief (Business) Process Officer” (CPO). The role of the CPO is to oversee and monitor BPM activities within the administration in order to increase BPM performance and its value creation by executing the business process strategy across organizational boundaries, such as departments or divisions.

Conclusion

The role of senior management in ICT projects is to provide visionary leadership and decision-making structure to enable operational improvements to take place. A Director-General, Commissioner or Chief Executive may not always possess an in-depth technical knowledge of ICT. However, they do need to have an appreciation of what ICT can do for their core business, set up the enabling environment to allow the relevant experts to come forward, and ensure that the proper governance is in place so that experts know their boundaries and stay focused on the strategic aims of the organization. Common standards and methodologies as well as Customs specific tools and instruments provided by the WCO should to be taken into account. One of the biggest challenges for senior management will be change management, and this will be something that they must devote their attention to, so that political will is translated into tangible action, and tangible action corresponds to their overall strategic aims.

Chapter 3: ICT Project Management

“It's not a faith in technology. It's faith in people.”

Steve Jobs

Introduction

Leadership by vision alone is not sufficient to ensure that an ICT project is delivered. It is also necessary for senior management to have an understanding of the various activities involved in developing a system, and to exercise the necessary supervision over the various activities, so that they can ensure proper management, alignment and governance.

Earlier, Chapter 1 dealt with the importance of strategic planning in establishing the necessary roadmap for medium to long-term developments. A Strategic Plan may serve as a guide for 3 to 5 years, with specific annual action plans to bring about the change in a gradual manner.

Senior management will have to be actively involved in the Project Steering Committee to ensure proper development and delivery of the various ICT systems, and their alignment with the Strategic Plan.

ICT Project Phases (Life Cycle)

There are various software development approaches which are defined and designed to be used for ICT projects; these approaches are also referred as “Software Development Process Models” (e.g. linear models such as the Waterfall model, iterative models such as the Rational Unified Process (RUP) or agile models such as Scrum, etc.). Each process model follows a particular life cycle in order to ensure success in the process of software development.

Life cycle models describe the various phases of an ICT project and the order in which those phases are executed. Below, the basic project phases of software development are described and illustrated in the context of the four basic stages of the project life cycle (described in further detail in Chapter 5 of the WCO Capacity Building Development Compendium on Project Management):

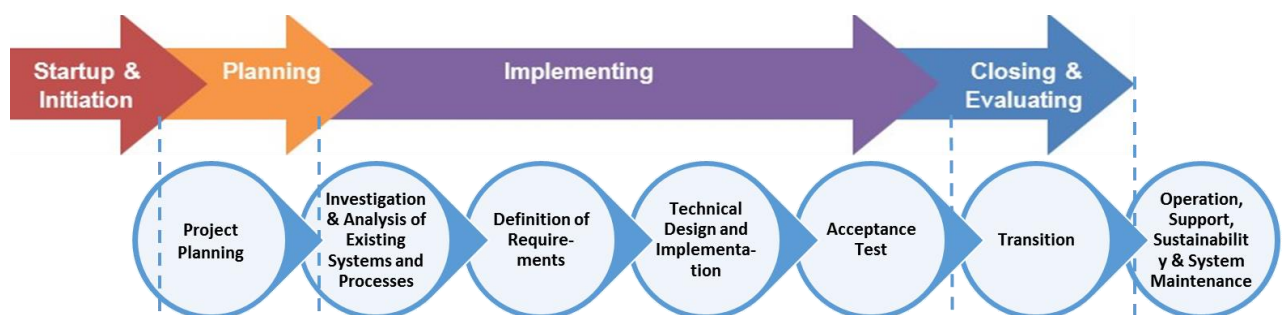


Figure 6: Basic ICT project phases in a linear (“waterfall”) model

By using the **linear approach**, the entire project has to be planned at the beginning of the process and then follows a step-by-step “linear” hierarchy through the various project phases, whereby the results of one phase provide the basis for the next phase, so that every project phase has to be completed before the next phase can start. The requirements and detailed user specifications for the new system have to be defined in a very early project phase before the technical development

stage begins. This approach has advantages, especially for smaller and foreseeable projects, but it does have its limitations when it comes to managing changes during the project flow. It is often the case that specific requirements are not yet completely known at the beginning of the project, and so functionality and workflow requirements will be determined later, perhaps even during the implementation process or the test phases. The integration of those changing requirements using linear project methods can lead to project delay and increasing costs.

Iterative software development and agile software development have become popular in recent years. Iterative software engineering involves splitting the project into smaller iterations. Each iteration contains all stages from analysis to delivery, and these can occur sequentially or even in parallel during the iteration phase.

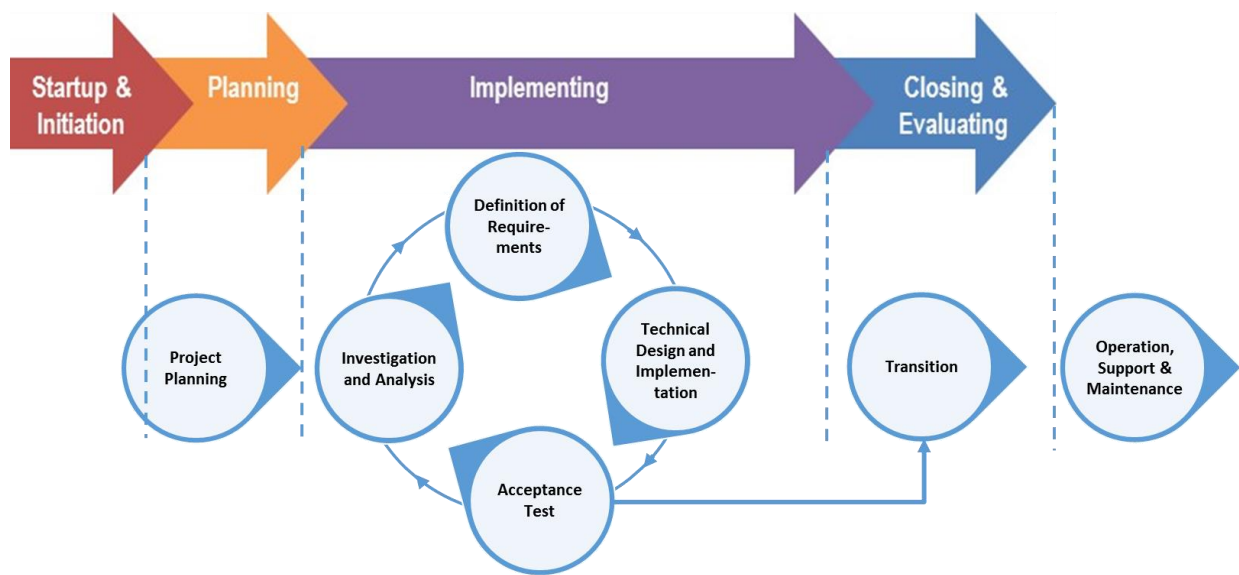


Figure 7: Project phases in an iterative model

Agile software engineering is based on a joint collection of values and principles that was set out in the Manifesto for Agile Software Development and its corresponding twelve principles, published by 17 software development companies in early 2001. At the core of agile product development is frequent feedback processes and cyclical (iterative) processes at all levels, i.e. at programming, team and management level. The agile approach alternates between very short planning and development phases. Daily communication between business stakeholders and technical developers, small development steps and quick delivery of small software components enable a quick and frequent feedback process and the integration of changing requirements and necessary adjustments during the whole software development process.

Phase 1: Project Planning

In practice, the aims of an ICT project are only roughly outlined after the project start-up and initiation which ties the changes to be delivered by a project to strategic direction. During the project planning phase, the substantive and organizational specifications of the project have to be further specified. Aspects of how to implement project management, change management, communication, quality and risk management have to be taken into consideration.

The aim of the project planning phase is to determine the scope and organization of the project as well as define time, cost and resource plans. This includes defining the:

- project scope, objectives and project order
- project organization chart
- project schedule, milestones and tasks
- responsibilities and reporting lines
- specific methods or project processes to be followed

Phase 2: Investigation & Analysis of Existing Systems and Processes

Detailed investigation and analysis of existing system(s) and processes are required because ICT does not take place in a vacuum, and it is very rare for a country or an administration to be able to “start from scratch” when developing ICT systems. There will be existing processes and workflows already in place that have been developed over time to meet specific needs, or even solutions that have been developed as part of a previous Strategic Plan that will have to be reviewed to ensure continual improvements.

The person(s) responsible for these tasks would typically have to:

- Identify and analyse current policies, the legal framework, business processes and existing IT systems that could be affected;
- Interview staff at all levels and consult procedure manuals and standard operating procedures affected;
- Analyse the information to produce a User System Specification.

Phase 3: Definition of Requirements (User System Specification)

The User System Specification should describe in business terms the main features of the new system, and how it will affect management, staff and the existing ways of doing things. The use of BPM helps to identify and define requirements and process flows for the new system.

This is where senior management will have to consider the change-management issues addressed in Chapter 2, in addition to other important decisions that may include:

- The existence of existing systems and contractual obligations, and the cost of retaining or retiring them;
- The need for interoperability with stakeholder agencies, and the need to follow relevant national laws or international standards and conventions;
- The pace of change and the capacity of the organization to accept this change;
- Differentiation between “must-have” and “good-to-have” functions and the respective cost implications between the two;
- The need for possible trade-offs in order to meet budgetary and capacity constraints.

Once the User System Specification has been approved, it should no longer be changed without going through a project change management process or without being part of a coordinated iterative or agile software development process. Senior management, as well as project leaders, should be very conscious of the fact that uncoordinated changes to project scope and functionality can lead to delays and increased project costs. As part of proper project management and corporate

governance, senior management needs to impose the necessary discipline through the Steering Committee to ensure that projects stay on track, on time and on budget.

Phase 4: Technical Design and Implementation of the System

After the acceptance of the User System Specification, the administration will need to consider how the Specification will be translated into an actual system. This phase includes different technical activities such as the design of architecture and applications, software programming, system integration and test activities. Procurement procedures can have an impact on this phase, because systems can either be developed using in-house expertise, by means of the procurement of the requisite expertise and equipment, or a combination of both (see the section on “In-House Development or External Procurement?” later in this chapter).

Documentation is an essential part of this process and should be something that senior management is keenly interested in. Without proper documentation, it becomes very challenging to develop the necessary User Manual and Operations Manual to enable the system to be properly deployed.

The User Manual refers to documentation that will instruct user departments in the operations required in order to operate the system properly and explain the actions to be taken in the event of a system failure or system error. The User Manual must be accessible for reference purposes throughout the operational life of the system and be updated whenever changes are made to the system. The User Manual is also an important part of the change management process, for training internal staff.

The Operations Manual refers to the permanent reference document used by IT professionals for information on the system to be implemented, and to the routine maintenance tasks necessary to ensure its effective operation.

Hence, while senior management will not be involved in the specific technical development of the ICT system, they need to ensure that the proper steps have been followed and that all planning and documentation has been undertaken. This is in order to ensure that the project will have a higher probability of success and that, in the event that unforeseen circumstances occur, proper business continuity and recovery procedures are in place so that business-critical functions can continue.

Phase 5: Acceptance Tests

Most testing activities are already performed during the phase of designing and implementing the system because testing should be a constant feature in all stages of software programming.

The acceptance test phase refers to the testing only phase, also referred as “acceptance tests” or “customer tests”, where any software defects have to be identified, reported, tracked, fixed and retested, until the product reaches the quality standards defined in the User Specification.

Acceptance tests differ from Unit Tests that are modelled and written by the software developers, and involve formal testing with respect to user needs, system requirements and business processes.

The decision to accept or reject the developed software or increment, based on the outcome of the acceptance test, has to be taken by the Steering Committee and the senior management. Therefore, an important function of the Steering Committee and senior management at this stage is to ensure that the necessary tasks are taken seriously, as inadequate testing and problem resolution can have serious implications for the successful launch of the system. Furthermore, in the case of external

procurement, the decision about the acceptance of the software can have financial consequences with regard to the fulfilment of the contractual obligations of the software developer.

Phase 6: Transition

The transition phase refers to the planning and realization of various activities involved in making the new system available to its users. This includes:

- Software packaging and deployment (technical installation)
- Data migration
- Rollout (changeover)
- Training of users and operating staff
- Communication strategy and adjustment of existing processes

The Steering Committee will again need to provide the necessary supervision to ensure that the relevant activities are well coordinated, as well as provide the support and authority required so that the respective project teams can perform those activities.

The changeover is one of the most important activities in the transition phase, due to its potentially mission-critical nature. The three basic strategies for implementing newly developed systems include:

- Parallel run;
- Pilot run;
- Direct changeover.

In the case of a *parallel run*, both new and old systems (including paper-based processes if applicable) operate concurrently for a fixed period of time, until the new system is established and functioning optimally, and the old system can be formally retired. This option is more viable if the two systems are identical in all major outputs, and if staff are available to operate both systems at the same time, while checking and preparing the new one for its official launch. It is not ideal if, for instance, a set of old electronic systems or manual processes are being integrated into a Single Window environment because disproportionate resources will be required from all participating government agencies to ensure the integrity of the previous work process, while ensuring that the new Single Window environment is functioning optimally.

The *pilot run* involves the identification of a specific location to operate the system, so that resources can be concentrated on that location and progressively introduced at other locations over a period of time. The benefit of a pilot run is that it allows for the implementation team to focus on and learn from the experience of one manageable pilot location, and apply those lessons to other pilot sites so that each implementation becomes faster and smoother.

Direct changeover involves the wholesale retirement of the old system by a fixed date, and the introduction of a new system the very next day. This is, on the surface, the neatest way to implement the system, but also the riskiest. The new system will have to be extensively tested to ensure reliability, and personnel will have to be well briefed and well prepared to activate the Business Continuity and Business Recovery Plans in the event of a system failure.

All three approaches have their respective advantages and disadvantages, and the Steering Committee and senior management will need to have full understanding of the implications of the decision taken. The exact choice will ultimately depend on the nature of the system to be implemented, the potential impact, and the availability of expertise in the administration to implement the system based on the decision made.

Staffing and human resource planning are another important consideration for senior management. Where capabilities do not exist within the administration to operate the new facility or systems, staff will either have to be re-trained, or recruited to bring in new talent. This will have to be done in coordination with the human resource department of the administration, and may involve training, work redesign, redeployment, and recruitment of either fresh graduates or experienced personnel with the necessary qualifications or skill sets.

Ultimately, the Steering Committee must recognize that the installation of expensive, mission-critical equipment must be high on the management agenda, and institute the necessary reporting mechanisms so that senior management is kept up to date on the various issues by project leaders who are empowered to solve operational problems, and, where necessary, senior management can intervene directly when appropriate.

Phase 7: Operation, Support, Sustainability & System Maintenance

The introduction of ICT systems in an administration is a journey, not a destination. Even after the successful implementation of an ICT system, continual effort is required to ensure that the systems implemented are maintained and continually enhanced.

Reasons for enhancement and maintenance may include:

- Possible bugs or errors that have not emerged during testing;
- Suggested improvements after users gain experience with the system;
- Changes to take advantage of new hardware or software;
- Increase in transaction volumes;
- Change in law requiring new provisions or procedures to be added to the system;
- Introduction of new, related systems;
- Features that were considered, but not included in the final User System Specification due to time or resource constraints.

The ease with which such changes can be implemented, and the ability of senior management to retain oversight over them, to ensure that the various activities remain well coordinated and successfully executed, will depend on the governance framework that was established to maintain the system. After the successful implementation of the system, it is conceivable that the work of the Steering Committee will transition to that of a Management Committee, where performance and sustainability issues of the new system will dominate its agenda. This will be discussed more fully in Chapter 4.

In-House Development or External Procurement?

An administration that possesses the necessary in-house expertise can perform the necessary detailed system design and programming work with its own experts. However, in view of the complexity and rapidly evolving nature of modern ICT systems, it is not always possible for Customs administrations to have in-house expertise in the development of ICT systems. The involvement of

“off-the-shelf” systems developed by companies specializing in e-government solutions means that Customs administrations can choose from different product and service offerings to meet their needs.

Customs administrations which do not have the in-house expertise to develop their own systems may also opt to install an entire automated system on a “turn-key” basis, in which hardware, software and related service and maintenance contracts are procured as one procurement exercise, or to conduct separate procurement exercises for different components, and integrate them.

In this situation, Customs staff will have to work with external consultants, business analysts, programmers and engineers to ensure that the requirements are properly captured and understood, the milestones are being met, proper testing, training and user-acceptance has taken place, and the required documentation is delivered.

In both the case of in-house development or external procurement, the risk of operating a “black-box” system that has not been properly documented and over which users have very limited understanding and control is a very serious one.

In addition, it has to be considered that the sheer volume of public procurement makes it vulnerable to corruption. There are many weaknesses in the public procurement systems of a number of countries, including developed countries, as a result of inadequate or obsolescent legislation, slow and complex formalities, the absence of control mechanisms, but also fraud and corruption (IDLO, 2007). The *WCO Guide to Prevent Procurement Corruption in Customs*² and the *WCO Guide to Corruption Risk Mapping*³ lay down valuable procedures and principles aimed at avoiding corruption in external procurement.

The Procurement Process

Even when the software is being developed with in-house capabilities, administrations may still have to undertake procurement for new hardware – computer servers, desktops, networking infrastructures, and their related maintenance or service contracts.

In the case of in-house development, if new computer hardware is required, it will have to be procured in parallel with the development, so that the equipment is ready for installation and testing once the software is ready.

Where entire systems (i.e. hardware, software and services) are being procured, it is necessary to have undertaken sufficient planning and due diligence to ensure proper and on-time delivery of goods and services.

Senior management need to carefully monitor and control procurement activities through the Steering Committee to ensure that a detailed analysis has been undertaken, the equipment to be procured meets the needs of the administration, and its procurement is financially prudent.

² WCO Guide to Prevent Procurement Corruption in Customs

http://www.wcoomd.org/-/media/wco/public/global/pdf/about-us/legal-instruments/declarations/procurement_guide_june_2015.pdf?la=en

³ WCO Guide to Corruption Risk Mapping

http://www.wcoomd.org/-/media/wco/public/global/pdf/about-us/legal-instruments/declarations/risk_mapping_guide_june_2015.pdf?la=en

Request for Proposal (RFP)

Most government procurement exercises start with the issuing of the RFP to a list of vendors that have been identified as likely to be capable of submitting a serious bid. This will specify, as a minimum:

- The mandatory requirements the computer system must be capable of performing, including the requirements for meeting computer standards such as compatibility, upgradability, system recovery and security, as well as tools and utilities to be included;
- Workload requirements describing the processes that will be performed, and the performance levels expected;
- Vendor support, listing all support requirements to be met by the vendors, including site planning, electrical installations, air conditioning, fire prevention, auxiliary power supply, installation schedule, pre-installation computer time, line test demonstration, on-site support, personnel, training needs and maintenance requirements;
- Reliability, to be expressed in terms of a percentage of scheduled operating time, and penalty clauses to ensure that adequate maintenance is done to ensure that the reliability criteria are met;
- Contractual arrangements, specifying the formal contractual obligations that will be entered into, including exact delivery dates, payment dates, penalties, dispute resolution, and after-sales services.

It will also be necessary to provide a number of “bench-mark” problems to potential suppliers. These may include test data or algorithms to allow them to verify if the proposed systems meet the standards required by the administration, and to submit the results as part of the final proposal.

Evaluation of Responses to RFP

Much of the information required will be highly technical and this is necessary in order for the project teams to perform the necessary comparisons. Companies that are not able to provide sufficient information, even after enquiries from the administration for clarification, should no longer be considered and the reasons should be documented to ensure transparency.

It will be the job of the project teams to distil the essential aspects of each RFP response received, and communicate them to the Steering Committee for its consideration and decision. The evaluation will typically form three parts:

- Technical Evaluation: ensuring that the proposal meets the mandatory requirements set out in the RFP;
- Cost Evaluation: comparing the costs of various possible options provided by the various suppliers, such as outright purchase, lease, and lease with option to purchase. Each option will have its respective pros and cons and will have to be contextualized within the administration’s specific policies, needs, and budget;
- Benchmark Evaluation: shortlisted suppliers could then be invited to perform a live test and demonstration to re-check the benchmark results in a supervised setting.

Customer Focus

Government ICT systems ultimately aim at improving the delivery of services to citizens and stakeholders. Hence, these systems cannot be developed in isolation without the cooperation and goodwill of the private sector.

The key operational principles necessary to intensify and advance a Customs-Business relationship, as well as to foster continued buy-in from the private sector on Customs initiatives, include:

- Communication: open and two-way;
- Transparency: clear and mutually agreed information and feedback processes;
- Collaboration: work to seek mutually beneficial outcomes where feasible;
- Inclusiveness: recognize, understand and involve all stakeholders in the process;
- Integrity: conduct engagement in a manner that fosters mutual understanding and trust;
- Accountability: an understanding that both parties have joint responsibilities.

In this context, the need to establish formal dialogue channels between Customs and the private sector is self-evident. This includes the need to undertake formal engagement and consultation with the private sector prior to the development of any new system, so that their views can be included in the development process, and to provide sufficient time and adequate information for them to understand how the changes will affect them, and what they will need to do to prepare for the changes.

The need to establish a help-desk is also important and supports the administration's commitment to serving its clients. It is an important facility to help customers to get used to, and make use of, the new ICT systems being developed by the administration.

A service-centric mindset is also important for identifying the correct Key Performance Indicators to measure the effectiveness of the ICT system being developed and, in doing so, shape the desired behaviours among the administration's officials to achieve these goals.

A service-centric mindset is not built overnight. It is a long-term programme that involves both "hardware", such as a call-centre facility that can handle the anticipated call volumes, and intangible "software", including training for officers to manage enquiries politely and professionally, as well as the necessary knowledge management set-up to allow officers to access information that will allow them to answer queries quickly and correctly. Most importantly, it is also necessary to inculcate help-desk officers with the correct mindset, so that they will take ownership of customers' queries in order to resolve them conclusively or, in the event that they are unable to do so, escalate them and refer the customer to the correct party to resolve the issue.

Conclusion

The key responsibility of senior management is to steer, manage and decide. But it is only possible to do so if senior management is conscious of the complexity involved in a typical ICT development and implementation process. In view of the extremely high cost of ICT projects and the business-critical nature of ICT infrastructures being developed, awareness and sensitivity to ICT is no longer a luxury, but a necessity for senior management.

The challenge for senior management is to acquire sufficient basic ICT know-how so that they are able to apply their managerial expertise and responsibilities to follow the key developments, and to establish the necessary reporting and monitoring processes so that they can supervise the big picture, without getting lost in the technical complexities and jargon.

Chapter 4: ICT Governance

“A computer will do what you tell it to do, but that may be much different from what you had in mind.”

Joseph Weizenbaum

Introduction

As highlighted in Chapter 1, a strategic management approach like the Balanced Scorecard will identify the strategic objectives important to a Customs administration, and the strategic ICT enablers that can support the administration’s strategic objectives.

The closer the collaboration between Customs operational areas and IT counterparts, the higher the quality of ICT implementation and corresponding results. However, the role of senior management in ICT goes beyond the simple need to list down the systems being developed, and how they can contribute to organizational objectives and results. It is also necessary to develop an Enterprise Architecture approach, so that complex process interactions are properly documented to enhance sustainability, support corporate governance and improve decision-making.

Organizational Risk Management

Risk management is not a new concept for Customs. Drawing on intelligence, information and experience, over time Customs has adopted procedures designed to combat non-compliance or circumvention of Customs laws.

In all Customs administrations, senior executives and managers are required to deliver greater outputs and outcomes with the same, or fewer, resources. Risk management enables a Customs administration to make explicit the choices that underpin its actions. A risk-oriented working method makes transparent the underlying reasons for organizational plans, enhances objective, informed decision-making and provides defensibility. Risk management is an important complement to strategic management.

To return to Chapter 1, it is clear that the strategic objectives identified directly correlate to strategic risk areas that are being addressed as well. In this way, both strategic management – through a tool, such as the Balanced Scorecard – and organizational risk management are aligned.

Regulatory Outcome		
Strategic Objective	Strategic Risk Areas	Related Projects
Collect & Protect Revenue	<ul style="list-style-type: none">- Revenue Risk<ul style="list-style-type: none">o Tax evasion undermines revenue collecting mission of Customs	<ul style="list-style-type: none">- Identify high-risk areas for enhanced checks- Enhanced recovery against public debtors- Introduce e-payment (1)
Uphold the Law	<ul style="list-style-type: none">- Border Security<ul style="list-style-type: none">o Terrorismo Smuggling- Legal<ul style="list-style-type: none">o Measures must be legally enabled	<ul style="list-style-type: none">- Increased border patrols- Improve intelligence sharing (2)

Facilitate Trade	<ul style="list-style-type: none"> - National Competitiveness <ul style="list-style-type: none"> o Reduced growth o Reduced tax base - Infrastructure <ul style="list-style-type: none"> o Congestion o Business continuity 	<ul style="list-style-type: none"> - Redeployment of manpower to improve clearance during peak periods - Improve border processes (3)
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Table 4.1: Alignment of Strategic Objectives and Organizational Risks

The essential point of this alignment goes beyond a conceptual understanding – it must be rooted in a correct understanding of accountability, and responsibility for each task being undertaken. They are not the same thing. “Responsibility” can be shared between different parties, while “Accountability” is never shared, but owned by a single party. A project may require different parties to collaborate and to be responsible for their respective tasks, but the overall accountability resides with the project team, and the project leader.

A project leader may need to work with the Human Resource director to plan for new recruitment, and the Human Resource director would have to undertake recruitment based on the established rules of the department. In the same way, a project leader may require the support of the Chief Information Officer (CIO) or IT director to develop a new system, and the CIO or IT director may have to ensure that the system being developed is in line with the **Enterprise Architecture** because having a stand-alone system that is not interoperable with other systems being developed can have adverse consequences for future maintenance.

In this way, issues that are brought to the Steering Committee for decision-making are fact-checked and coordinated and, where necessary, the Steering Committee can make the decisions needed to de-conflict between differing professional viewpoints.

Enterprise Architecture

The Massachusetts Institute of Technology defines Enterprise Architecture as “the organizing logic for business processes and IT infrastructures reflecting the integration and standardization requirements of the firm’s operating model”.

Enterprise Architecture aims to find links between the business imperatives of the enterprise and the deployment of technology in order to achieve alignment between the two. This enables resources to be more optimally deployed, and reduces redundancies and duplications in the design and deployment of ICT solutions.

As previously discussed in Chapter 1, ICT deployment is driven by the organization’s strategic objectives. The involvement of the CIO also leads to more effective implementation and outcomes. Just as the Balanced Scorecard provides the high-level “roadmap” to guide the organization in achieving its goals, Enterprise Architecture provides the corresponding level of detail to ensure that ICT implementation is done in a coordinated and standardized fashion, so that ICT infrastructure costs are well managed, ICT system performance is optimal, and systems can scale to future needs and are sustainable.

In the context of Customs, Enterprise Architecture refers to:

“The fundamental organization of a Customs Administration, consisting of business processes, organizational entities, applications and technical infrastructure components, their mutual relations, the business services provided to the environment, as well as the principles that guide the design and evolution of the Customs Administration’s processes and applications”.

In order to achieve maximum benefits in the implementation of Enterprise Architecture, the architectural design and the surrounding change management and decision-making processes need to be closely linked. The relationship between Enterprise Architecture, strategic management and project management is summarized in the following diagram.

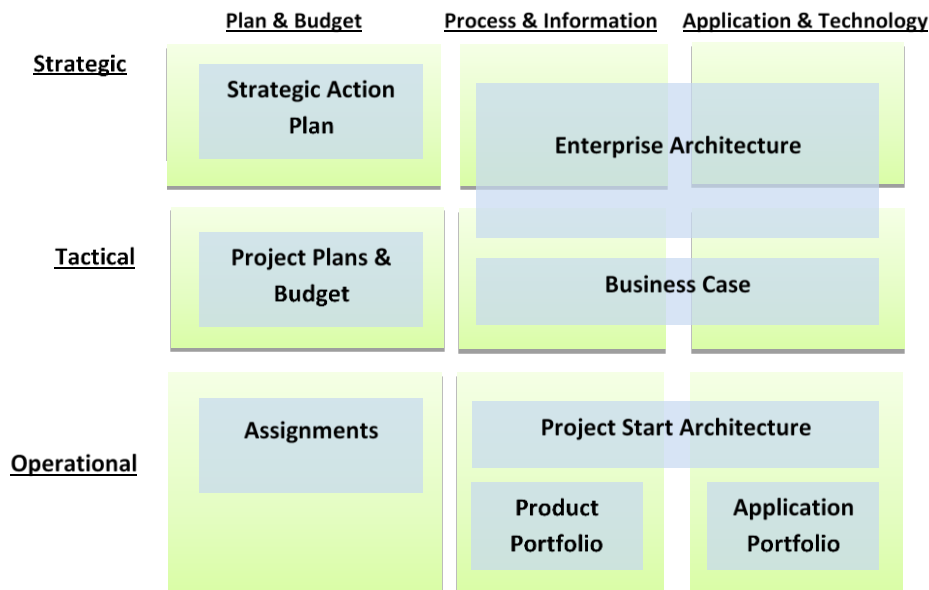


Figure 8: Method Framework (WCO Capacity Building Compendium)

In this way, the linkage between strategic management and ICT projects becomes very clear and provides the necessary context in which senior management can exercise effective decision-making for each ICT development. It makes clear the fact that within an organizational decision-making process, there exist different levels – Strategic, Tactical and Operational (vertical), different aspects within each level (horizontal), and the need for mutual alignment between these aspects.

Hence, Enterprise Architecture is nothing more than a translation of the administration’s Strategic Plan through an ICT-centric perspective, so that it allows for the development of systems that are aligned, interoperable and well maintained.

It remains the case that technical problems need to be addressed at the technical level. Senior management’s focus should remain on the issues of strategic significance.

To take “Revenue Risk” as an example: Customs duties form an important part of a national government’s operating expenditure and would, inherently, be prominently featured as a Strategic Objective. Failure on the part of Customs to effectively execute its revenue collection functions can have serious implications for the national budget. This is something that the Head of Administration is ultimately accountable for.

Hence, any ICT systems being developed in relation to revenue collection will need to be based on this strategic reality, and senior management's focus should be on ensuring that ICT systems developed contribute to mitigating the risk of not collecting enough revenue, and to achieving the revenue targets.

The ultimate aim is to develop the necessary line of sight between the strategic level considerations, and the operational level developments, so that senior management will be able to steer ICT developments in a way that reflects the strategic intent.

Data Analysis and Data Governance

In the growing digital economy and information society, data has become a significant business asset for both governments and business alike. The digital revolution is generating exponential opportunities regarding data access, capture, aggregation and analysis with a view to meeting organizational goals more effectively.

It is becoming increasingly apparent that Customs can benefit significantly by harnessing the power of available data and leveraging the advantages of advanced analytics. Applications of big data enable Customs and border regulatory agencies to adopt a proactive rather than a reactive response to supply chain risks, whilst facilitating legitimate trade.

In line with the WCO theme for 2017, "Data Analysis for Effective Border Management", the WCO carried out related work from different perspectives, reflecting on this topic from the point of view of the supply chain and facilitation and developing guidance material on how data analytics could be used to enhance the implementation of the SAFE Framework of Standards and the AEO Programme⁴.

Data Analysis

Data analytics is the process of analysing data sets in order to discover or uncover patterns, associations and anomalies from sets of structured or unstructured data, and to draw practical conclusions. Big data analytics may reveal information that is not intuitive or is difficult to assess by any other means.

Advanced data analytics such as predictive analytics can enable Customs to risk rank import and export transactions and create risk scores in real time, thus facilitating compliant traders while intercepting fraudulent shipments. Data analytics can equally help in identifying and prioritizing risk-based audits.

Data Governance

Data Governance encompasses the overall management of the availability, usability, integrity and security of data, from collection to modelling and computerized processing. The implementation of a data governance framework and the creation of a data governance catalogue are necessary for Customs agencies to understand, maintain and govern their information appropriately. Data governance is an integral part of effective data analytics projects.

A sound data governance program includes a defined set of procedures, a plan to execute those procedures and a governing body:

⁴ Data Analysis Practitioner's Handbook

1. Identification of Data Ownership and Data Sources:
The initial step in implementing a data governance framework involves the definition of the owners and sources of relevant data assets.
2. Definition of Processes:
A set of standards must be developed that defines how the data is used by authorized personnel. This includes definitions of how data will be stored, archived, moved, changed, accessed and secured as well as processes for control, audit and monitoring that ensures ongoing compliance with internal data policies and external government regulations.
3. Definition of a governing body
Data Governance programs also include the definition of a Chief Data Officer, a Data Steward or a Data Stewardship Council that is made up of a set of Data Stakeholders who make data-related decisions and govern the compliance of the defined data governance processes. In large organizations, a single level of stewards can be inadequate; in this case, a hierarchy of stewards has to be established, led by a Chief Data Officer. It can furthermore be useful to allocate responsibility for Data Stewardship according to specific data issues or decisions, whereby, for example, a data protection officer would deal with issues of data security.

Senior Management Role in Steering ICT Developments

As previously covered in Chapter 3, as well as in the section above on Enterprise Architecture, ICT projects are multi-faceted and require planning and coordination across different functions, different dimensions, and different perspectives.

Strategic planning provides the overarching vision for the administration that serves as a roadmap for both ICT and non-ICT areas.

Project planning provides the details on what needs to be done for every single ICT project.

Business continuity planning provides the details on what to do in the event of unexpected unavailability of a business-critical system.

All of these planning activities also have budgetary, administrative, human resource, risk management and technological dimensions. Attempting to perform each planning activity in isolation can lead to duplications, unclear decision-making and confusion. Hence, it is important to establish a streamlined and efficient decision-making structure to ensure that the different aspects are done holistically, and senior management is able to have a clear overview of the administration's health.

The tasks and profiles of the different Committees can be summarized as follows:

Name of Committee	Level of Participants
Steering Committee (Reporting to political decision-makers, e.g. Ministry, Minister)	Senior management

Responsible for: <ul style="list-style-type: none"> - Providing approval for project commencement - Reviewing progress of key projects (budget, timeline, deliverables) - Providing guidance so that projects are aligned with Strategic Plan - Deciding in the event of conflict, overlap in projects Accountable for: <ul style="list-style-type: none"> - Achievement of organization’s core mission and strategic objectives through ICT projects identified 	
Name of Committee	Level of Participants
Sub-Committees (e.g. Human Resource, Information Technology, Risk Management, Business Continuity) (Reporting to Steering Committee)	Head of Department / Branch (i.e. Directors, Heads)
Responsible for: <ul style="list-style-type: none"> - Providing expertise and support for Project Teams - Advising Steering Committee on the issues identified by Project Teams and the actions required to resolve them Accountable for: <ul style="list-style-type: none"> - Governance of areas under its mandate 	
Name of Committee	Level of Participants
Working Committees / Project Teams (Reporting to Steering Committee)	- Project leaders
Responsible for: <ul style="list-style-type: none"> - Detailed planning work on the project - Informing Sub-Committees on issues identified and working collectively on actions needed to resolve them - Coordinating with line managers and other Working Committees / Project Teams to ensure synergy Accountable for: <ul style="list-style-type: none"> - Successful delivery of project 	

Table 4.2: Profiles of Steering Committee, Sub-Committees and Working Committees / Project Teams

As shown in Table 4.2, an essential feature of most attempts to manage complex projects like ICT modernization, Coordinated Border Management and Single Window development is the Steering Committee. The Steering Committee typically involves the highest level of management and is also commonly supported by a number of sub-committees or working committees. In this way, operational details can be worked on by the relevant officials that are directly involved, before escalating to the Steering Committee for endorsement and approval.

In this way, Organizational Risk Management, Strategic Management and Project Management dovetail to provide strong clarity over who is “responsible” and “accountable”. This also provides the necessary checks and balances to ensure that proper internal coordination and informed decision-making take place.

Identifying Issues of Concern to Senior Management

A well-defined strategic management process and structure will ensure that all the necessary details relating to strategic planning, risk planning and project planning have been addressed. The challenge

lies in distilling these details into proper decision-making inputs for different responsible parties for informed decision-making.

Where reporting is concerned, having too much information is just as bad as having too little. In an environment where conflicting priorities and tight deadlines challenge every single staff member, it is necessary to ensure that the correct level of information is provided to different parties in the decision-making process.

A summary of the key types of documentation produced, their purpose and their intended audience, is shown below and provides some ideas for ensuring that appropriate levels of detail reach the correct audience for appropriate action:

Name of Document	Level of Detail / Information	Purpose	Audience	Governance
Strategic Plan	Moderately detailed, Strategic-Level	Communicate high-level vision	Internal staff & external stakeholders	Key Performance Indicators
Strategic Business Case	Moderately detailed, Strategic-Level	Secure political mandate	Senior management / Steering Committee, Minister(s)	Decision, budget and programme scope
Detailed Business Case	Moderately detailed, Tactical-Level	Provide details on planned organization & activities	Senior management	Decision, timeline of activities and action
Project Plan (including risk management, human resource planning, IT infrastructure, business continuity)	Very Detailed, Operational	Provide specific details on implementation of individual projects	Project Team, Sub-Committees, internal staff (Senior management involvement only necessary for endorsement / escalation)	Project timeline, list of planned activities and status, issues for escalation
Routine Updates	Brief, Operational	Provide details on progress / deviation from planned projects	Senior management / Steering Committee	Decision, revised plans and documented follow-up actions

Table 4.3: Information to Facilitate Governance

Where endorsement and escalation are concerned, senior management approval should not be seen as a mere formality. Due to the direct linkage between ICT projects and Strategic Plans, the high costs involved, and the business-critical nature of such developments, senior management must ensure that:

- ICT solutions are meeting business challenges;
- ICT resources are used optimally with minimum redundancies and duplications in processes;
- The burden of maintaining infrastructures is justifiable and linked to the achievement of key strategic objectives;
- Visibility is maintained over Returns on Investments (ROI) and Total Cost of Ownership (TCO).

Hence, senior management's role in the preliminary stages of planning is essential. However, as the project enters into the operational planning and implementation phase, it is necessary for project teams and project leaders to operate with some discretion, due to the technical nature of the work.

Senior management can then rely on the structures already in place to perform the necessary supervision to ensure that the work is on track, the persons responsible for providing the necessary support are engaged, the person accountable is delivering as per the Project Plan, and that the work done is in line with the Strategic Plan.

Conclusion

The challenges of managing a large, complex organization cannot be underestimated. Organizational structures, governance structures, task management and reporting channels ultimately aim towards one objective only: to support informed decision-making so that the organization's vision and goals can be met.

The need to manage different perspectives does not imply that complex project management bureaucracies are necessary. It simply means that responsibilities and accountabilities need to be well established and formalized, and that senior management is able to establish an environment conducive to collaboration between internal staff and external stakeholders, and to ensure the successful implementation of ICT projects through informed decision-making.

Use of the ICT - Agreement on Trade Facilitation

- I. Information & Communication Technology (ICT) is critical for implementing the WTO Agreement on Trade Facilitation (TFA). This annex examines each measure contained in the Agreement in order to assess the potential for the use of modern tools of ICT. References have been made to the relevant portions of the Guidelines to Chapter 7 of the General Annex to the Revised Kyoto Convention (Kyoto ICT Guidelines).

- II. In doing the analysis for each Article, Members should bear in mind the strategic opportunity presented by this Agreement to give a new strategic direction to ICT, human resource and capacity building. Taken together, this agreement provides for the possibilities for Members to scale new levels of trade facilitation in terms of transparency, efficiency and predictability. ICT can contribute to improvements in a wide range of Customs and other border processes, and governments/Customs must prioritize based on its strategic goals and resource constraints. Aligning strategic goals with key performance indicators (KPIs) helps in developing sound planning for ICT projects. It might be an incentive for developing an overall strategic plan, and devising programme areas to cover the various measures contained in the Agreement. To this end, the WCO IT Guide for Executives provides information and insights into the strategic management processes concerning the use of ICT.

Implementing TFA Measures

Transparency

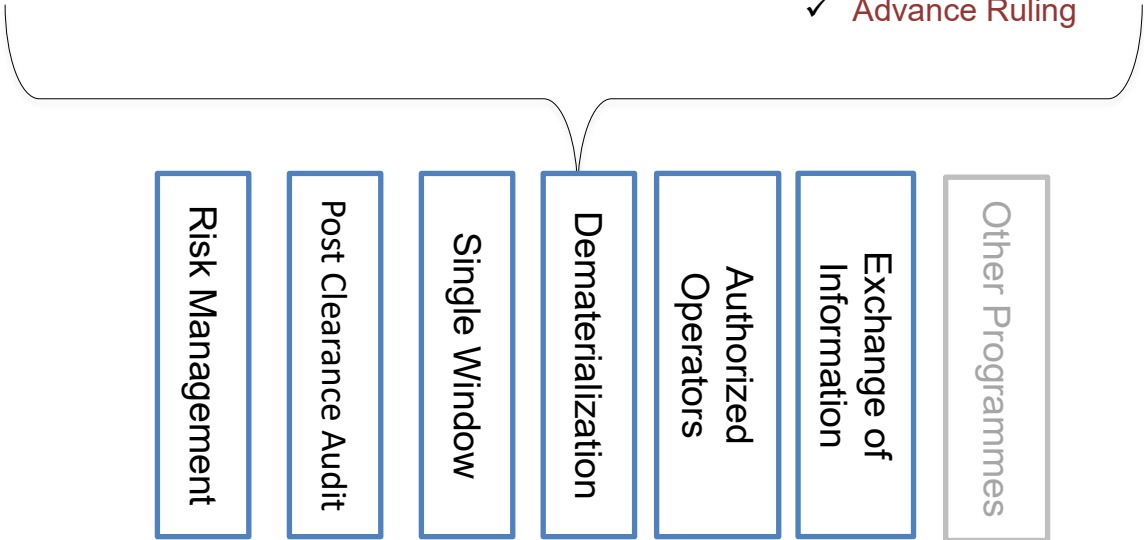
- ✓ Web Publication of compliance information
- ✓ Prior Consultation
- ✓ Enquiry points
- ✓ Notification of alerts

Efficiency

- ✓ Electronic Processing
- ✓ Dematerialization
- ✓ Single Window
- ✓ International Standards
- ✓ Coordinated Border Management

Predictability

- ✓ Pre-arrival processing
- ✓ Separation of Release & Clearance
- ✓ Authorised Operators
- ✓ Risk Management
- ✓ Post Clearance Audit
- ✓ Advance Ruling

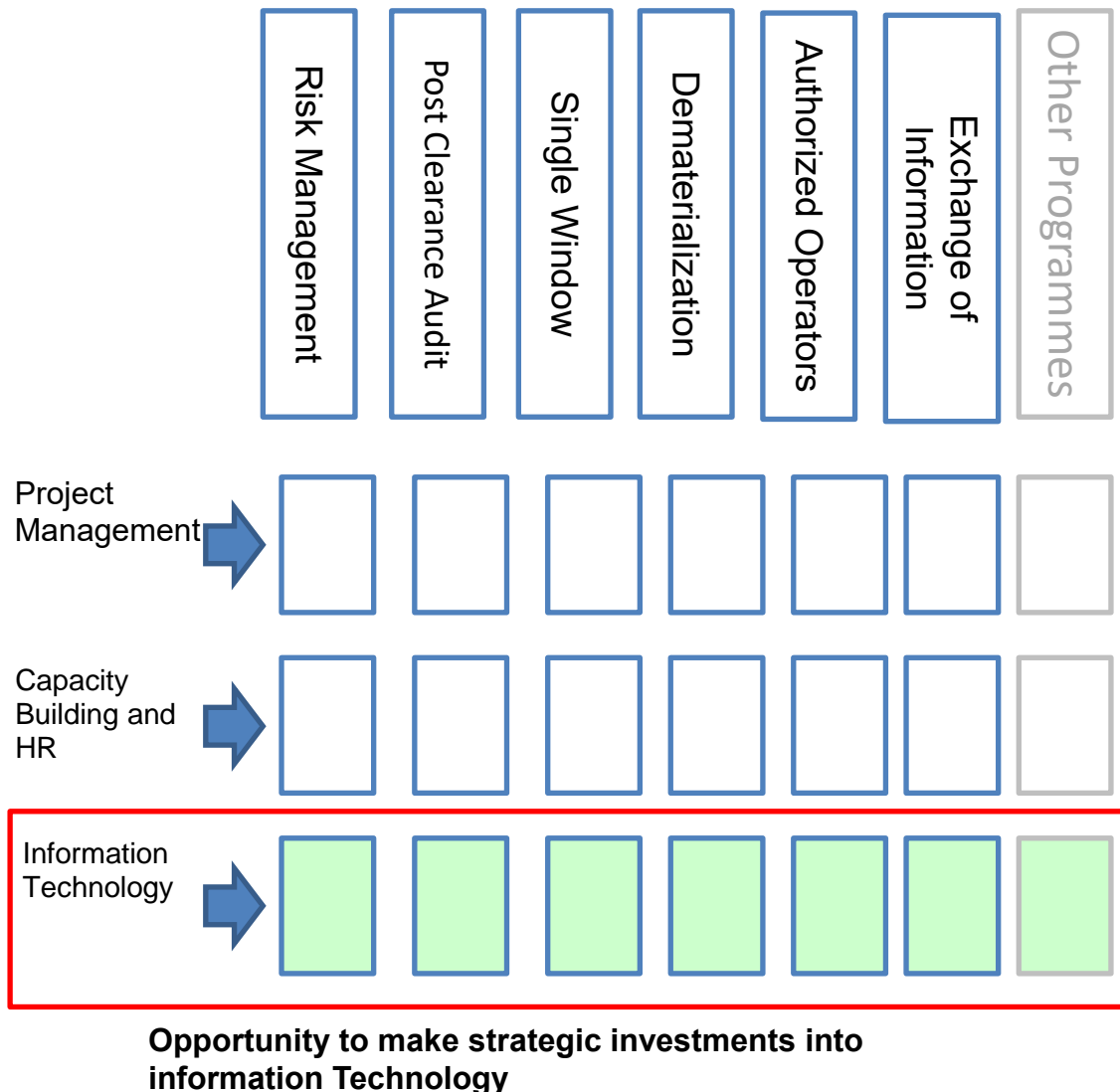


Strategic Planning and Programme

III. Each multi-year programme should be supported by a human resource and Capacity Building component. Likewise, there should be a component dealing with ICT for each programme area. Taken together, these programme areas will require strategic investments into ICT infrastructure.

Aligning ICT Strategy

Programmes for implementing the TFA



- IV. There is a potential danger that the measures contained in the TFA will be treated as distinct projects that are run by individual departments. Such an approach would not lead to the desired outcome. There should be a corporate approach to preparing multi-year programs, that could then be converted into the annual action plan for execution. The WCO has already developed some concrete performance indicators for each measure contained in the TFA.
- V. The requirements of the TFA call for the active involvement of the “corporate planning division” of the Member administrations. Through proper planning and sequencing, there is a need to develop and run distinct programmes for developing capabilities to support trade facilitation. To support these programmes, it is necessary to develop an organizational perspective on its ‘capabilities’ – i.e. a blueprint of its (i) business functions and (ii) how they are preformed (processes, skills and competencies, tools (IT) and equipment).

Article wise Analysis

ARTICLE 1: PUBLICATION AND AVAILABILITY OF INFORMATION

1. Publication

1.1. Each Member shall promptly publish the following information in a non-discriminatory and easily accessible manner in order to enable governments, traders and other interested parties to become acquainted with them:

- a. Importation, exportation and transit procedures (including port, airport, and other entry-point procedures) and required forms and documents;
- b. Applied rates of duties and taxes of any kind imposed on or in connection with importation or exportation;
- c. Fees and charges imposed by or for governmental agencies on or in connection with importation, exportation or transit;
- d. Rules for the classification or valuation of products for customs purposes;
- e. Laws, regulations and administrative rulings of general application relating to rules of origin;
- f. Import, export or transit restrictions or prohibitions;
- g. Penalty provisions against breaches of import, export or transit formalities;
- h. Appeal procedures;
- i. Agreements or parts thereof with any country or countries relating to importation, exportation or transit;
- j. Procedures relating to the administration of tariff quotas.

1.2. Nothing in these provisions shall be construed as requiring the publication or provision of information other than in the language of the Member except as stated in paragraph 2.2.

2. Information Available Through Internet

2.1. Each Member shall make available, and update to the extent possible and as appropriate, the following through the internet:

- a. A description⁵ of its importation, exportation and transit procedures, including appeal procedures, that informs governments, traders and other interested parties of the practical steps needed to import and export, and for transit;
- b. The forms and documents required for importation into, exportation from, or transit through the territory of that Member;
- c. Contact information on enquiry points.

2.2. Whenever practicable, the description referred to in subparagraph 2.1 a. shall also be made available in one of the official languages of the WTO.

2.3. Members are encouraged to make available further trade related information through the internet, including relevant trade-related legislation and other items referred to in paragraph 1.1.

⁵ Each Member has the discretion to state on its website the legal limitations of this description.

3. Enquiry Points

- 3.1. Each Member shall, within its available resources, establish or maintain one or more enquiry points to answer reasonable enquiries of governments, traders and other interested parties on matters covered by paragraph 1.1 as well as to provide the required forms and documents referred to in subparagraph 1.1 a.
- 3.2. Members of a customs union or involved in regional integration may establish or maintain common enquiry points at the regional level to satisfy the requirement of paragraph 3.1 for common procedures.
- 3.3. Members are encouraged not to require the payment of a fee for answering enquiries and providing required forms and documents. If any, Members shall limit the amount of its fees and charges to the approximate cost of services rendered.
- 3.4. The enquiry points shall answer enquiries and provide the forms and documents within a reasonable time period set by each Member, which may vary depending on the nature or complexity of the request.

4. Notification

- 4.1. Each Member shall notify the Committee of:
 - a. The official place(s) where the items in subparagraphs 1.1 a. to j. have been published; and
 - b. The URLs of website(s) referred to in paragraph 2.1, as well as the contact information of the enquiry points referred to in paragraph 3.1.

Implications for Information Management

1. Under this article, Members are required take action regarding the publication of information on government regulations and procedures affecting international trade. Governments must notify to traders and other interested parties the public channels through which such information is accessible. To support this process of managing publications and enquiry points in an efficient and sustainable manner, it is prudent to make extensive use of information and communications technologies.
2. It is absolutely essential to have an arrangement in place to identify the agencies responsible for the publication of trade information, to define the scope of their responsibilities and the mechanism to co-ordinate publication activities, so that traders and other interested parties can get coherent and contextualized information.
3. WTO Members are governments and this Article does not limit the requirement of publications and enquiry points on Customs alone. Therefore, it would perhaps be useful to consider a 'whole of government approach' when complying with the requirements contained in this Article, so that the traders and other interested parties do not have to visit multiple locations or navigate through different websites to find information about actions to be taken for release and clearance of goods. Chapter 2 - Volume 2 of the WCO Compendium on How to Build a Single Window Environment contains an approach for Initial Functional Assessment to systematically collect information about different government agencies dealing with cross-border regulation of trade. Templates contained in this chapter may be used in collating the required procedural, regulatory and compliance information.

Document life-cycle Management Systems

4. Documents containing information about laws and procedures governing cross-border trade may originate from a wide variety of sources within government. It is necessary to unambiguously designate ownership of, and responsibility for, different types of information and content, the manner of their publication (online, government journals, official gazettes etc) and lay down clear lines of communication with the respective owners.
5. There are IT-based tools (called Document Management Systems) that can help the management of the documents through their entire life-cycle namely assignment of ownership, drafting-reviewing-publishing and archiving phases. These systems allow documents to be developed in a work group and allow controls to be implemented for accessing editorial rights to documents and for keeping track of document mark-ups and updates. Document Management Systems also help in automating hardcopy and web publication of content and maintain a secure, controlled and auditable environment for publications.
6. There are some laws and regulations that do not change very often, while others such as regulatory requirements for commodities, duties, taxes and fees etc are often subject to modification. Document Management Systems are useful in managing both types of information.

Content Management Systems

7. Traditional websites involve running several applications to design, edit, stylize and publish content. With advancements in web publication technologies, it is now handled through a turn-key system known as Content Management System (or CMS). A CMS is a productivity tool.
8. Content Management Systems offer workflow automation to streamline the content of publishing procedures. This not only enforces accountability but also reduces the turnaround time. Content authors and editors can use the workflow to review the process regularly and reduce any lag between the finalization of documents and their publication. Content Management Systems take into account multiple content types (e.g., database, texts, images), multiple usage scenarios (internal and external users) and multiple access methods (web, mobile phone, kiosks, and officers), so that the right content is available to the right person at the right time.
9. Border Agencies have their own respective ways of publishing information. Traders and other interested parties, however, seek information based on their specific context. That context could be the commodity being traded, the Customs or regulatory procedure under which goods are to be placed, the applicable regime, the location-specific information etc. Customs and border agencies should organize information in such a way that it is available and easily navigable from the context. This calls for the use of Content Management Systems that can effectively manage the required content. As regards organizing the content of the website, the WCO Recommendation on the use of World Wide Web provides comprehensive information.

Publications should support traders' automated compliance environment

10. An increasing number of traders are using automated systems to implement trade processes. In these processes, they seek to integrate regulatory requirements, such as integrated tariff, export controls, automated calculation of landed costs, Restricted

Party lists, quotas and so forth. Professionally developed export and import compliance tools including drop-down menus can simplify the overall compliance process for these traders. While solutions vary from one another, they all depend on information published by governments. If compliance requirements are arranged in machine-readable formats and are published and shared in such formats, it will not only be useful for traders and their solution provider, but also to the government departments. If the underlying information that drives a government department's own automated systems for processing declarations is the same as those that traders use, overall compliance will improve.

11. Trade Hubs

Nigeria Trade Hub.

The Nigeria Trade Hub (NTH) provides a comprehensive introduction to international trade in Nigeria. It is mainly a portal for the traders to get correct information to enable them to make your decisions about doing business in Nigeria.

NTH provides information about all the Nigerian Regulatory Agencies, their contact details, processes, documents, fees and processing times that an Importer or Exporter will need to liaise with to obtain the necessary import permits and certificates that are required to ensure compliance. The NTH further provides contact details of organisation linked with trade in Nigeria.

NTH also has a searchable Document Library providing all the necessary downloadable documents relevant to trade in Nigeria, from Official Publications to Legal Information, Regulatory Documents and Customs Procedures.

Tools of the NTH include 'The HS Code Classification Tool' – an intuitive tool that assists the Importer with the correct classification of their products for both import and export. Once the correct HS Code for an importation product is obtained, the tool provides the necessary regulatory information about the product including Regulating Agencies, Control Measures, Prohibition Status, Ecowas Trade Liberation Scheme (ETLS) status depending on the Country of Origin, Document Requirements, Related Duties and Fees and Processing times. For export products, the exporter on selection of the Country of Export is presented with the Exportation Country's Market Access information including the relevant HS Code and the rates of duty it will attract upon entry.

(Source: Nigeria Customs Service)

Trade Hubs are information web portals that represent a government-wide effort to provide online trade information. Trade Hubs are intended to provide information from a trader's perspective, starting from procedural information to helping with commodity classification, valuation and the determination of landed cost. Trade portals may even help find potential trade partners.

Solutions for Contact Centers (enquiry points)

12. The provision regarding 'Enquiry points' would require governments to designate the authority responsible for setting-up and operating enquiry points, where different

models are possible. One where each border agency has its own enquiry point and another where there is a centralized agency that handles all enquiries or acts as a “switchboard” to the individual enquiry points. It would be an act of ‘non-facilitation’ if a trader’s question is repeatedly re-directed to different enquiry points.

13. Chapter 7 of the Kyoto IT Guidelines provides detailed information on the strategic role of enquiry points in Customs administrations and contains guidance on how to set-up helpdesks. The use of ICT in the area of Contact Centers is very significant. Contact Centers play a strategic role in the overall service delivery process in any organization. The officials operating the ‘enquiry points’ should have access to online information sources in order to support each type of call. This calls for the development of software applications to assist officers manning the enquiry points. It is often seen that such solutions become potential ‘user self-service’ facilities, allowing a trader access to the same information as that of an enquiry point official.
14. Telephonic enquiry points are often linked to interactive voice response (IVRs) systems. Along with IVRs web-based self-service options, enquiry points can become very effective tools for operating service-oriented border agencies. With the advancements in voice computing and artificial intelligence technologies, virtual ‘Voice Assistants’ (like Apple Siri and Amazon Echo) can handle and provide efficient enquiry services.

Conclusion

15. The provisions of Article 1 of the TFA provide a real opportunity for countries put into place an integrated information system to support access to information about trade procedures and documentation. This Article is especially significant as it supports the implementation of the basic transparency provisions of the Agreement.
16. Design and management of web content is not a trivial matter. It touches the very core of the interaction between border agencies and the traders. In an automated environment, and when the mandate in the TFA is implemented, online interaction could represent the overwhelming proportion of the total interaction between government and traders. Success and failure of such interactions, and ‘customer experience’ would depend almost entirely on the quality of online information. That is where ICT can play a significant role.

ARTICLE 2: OPPORTUNITY TO COMMENT, INFORMATION BEFORE ENTRY INTO FORCE AND CONSULTATION

1. Opportunity to Comment and Information before Entry into Force

1. Each Member shall, to the extent practicable and in a manner consistent with its domestic law and legal system, provide opportunities and an appropriate time period to traders and other interested parties to comment on the proposed introduction or amendment of laws and regulations of general application related to the movement, release and clearance of goods, including goods in transit.
2. Each Member shall, to the extent practicable, and in a manner consistent with its domestic law and legal system, ensure that new or amended laws and regulations of general application related to the movement, release and clearance of goods, including goods in transit are published, or information on them made otherwise publicly available,

as early as possible before their entry into force, in order to enable traders and other interested parties to become acquainted with them.

3. Changes to duty rates or tariff rates, as well as measures that have a relieving effect or whose effectiveness would be undermined by prior publication, measures applied in urgent circumstances, or minor changes to domestic law and legal system are excluded from paragraphs 1.1 and 1.2 above.

2. Consultations

Each Member shall, as appropriate, provide for regular consultations between border agencies and traders or other stakeholders within its territory.

Implications for Information Management

1. Under this article traders and interested parties must be given the opportunity and “reasonable” time to comment on proposals prior to the introduction of changes to laws and regulations governing international trade. Of course, each Member would have to notify its procedures for notification of proposed changes.
2. Of considerable importance is the manner in which the interested parties will be informed. There are several channels which could be used including publication on the internet, holding of public hearing, newspapers, office journals and registries etc. Mailing lists and social media may also be used for reaching out to the known stakeholders.
3. Formal consultation on proposed legal changes would involve maintaining an official window for receiving comments, keeping publicly accessible records of public hearings and comment logs. This can be facilitated through known ICT tools such as online discussion forums, social media websites, mailing lists etc.
4. This also ties with the Document Life-cycle Management Systems mentioned in the context of Article 1. Documents that are under active public consultation can also be maintained as part of such systems.
5. Endeavour should be to promote clear and easily accessible consultation mechanisms to facilitate SMEs’ participation in the policy framing and implementation process. Participation from SMEs can be encouraged through ‘virtual’ mode through the use of ICT, if they are unable to attend physically due to various constraints (cost, time). The WCO Customs-Business Partnership Guidance provides several such opportunities of consultation with businesses through the use of ICT.

ARTICLE 3: ADVANCE RULINGS

Each Member shall issue an advance ruling in a reasonable, time bound manner to an applicant that has submitted a written request containing all necessary information. If a Member declines to issue an advance ruling it shall promptly notify the applicant in writing, setting out the relevant facts and the basis for its decision.

1. A Member may decline to issue an advance ruling to an applicant where the question raised in the application:
 - a. is already pending in the applicant's case before any governmental agency, appellate tribunal or court; or
 - b. has already been decided by any appellate tribunal or court.

2. The advance ruling shall be valid for a reasonable period of time after its issuance unless the law, facts or circumstances supporting the original advance ruling have changed.
3. Where the Member revokes, modifies or invalidates the advance ruling, it shall provide written notice to the applicant setting out the relevant facts and the basis for its decision. Where a Member revokes, modifies or invalidates advance rulings with retroactive effect, it may only do so where the ruling was based on incomplete, incorrect, false or misleading information.
4. An advance ruling issued by a Member shall be binding on that Member in respect of the applicant that sought it. The Member may provide that the advance ruling be binding on the applicant.
5. Each Member shall publish, at a minimum:
 - a. the requirements for the application for an advance ruling, including the information to be provided and the format;
 - b. the time period by which it will issue an advance ruling; and
 - c. the length of time for which the advance ruling is valid.
6. Each Member shall provide, upon written request of an applicant, a review of the advance ruling or the decision to revoke, modify or invalidate the advance ruling.⁶
7. Each Member shall endeavour to make publicly available any information on advance rulings which it considers to be of significant interest to other interested parties, taking into account the need to protect commercially confidential information.

2. Definitions and scope:

- a. An advance ruling is a written decision provided by a Member to an applicant prior to the importation of a good covered by the application that sets forth the treatment that the Member shall provide to the good at the time of importation with regard to:
 - i. the good's tariff classification, and
 - ii. the origin of the good;⁷
- b. In addition to the advance rulings defined in subparagraph 3.9 a., Members are encouraged to provide advance rulings on:
 - i. the appropriate method or criteria, and the application thereof, to be used for determining the customs value under a particular set of facts;
 - ii. the applicability of the Member's requirements for relief or exemption from customs duties;
 - iii. the application of the Member's requirements for quotas, including tariff quotas; and
 - iv. any additional matters for which a Member considers it appropriate to issue an advance ruling.
- c. An applicant is an exporter, importer or any person with a justifiable cause or a representative thereof.

⁶ Under this paragraph: a) a review may, before or after the ruling has been acted upon, be provided by the official, office or authority that issued the ruling, a higher or independent administrative authority, or a judicial authority; and b) a Member is not required to provide the applicant with recourse to Article 4.1.1 of this Agreement.

⁷ It is understood that an advance ruling on the origin of a good may be an assessment of origin for the purposes of the Agreement on Rules of Origin where the ruling meets the requirements of this Agreement and the Agreement on the Rules of Origin. Likewise, an assessment of origin under the Agreement on Rules of Origin may be an advance ruling on the origin of a good for the purposes of this Agreement where the ruling meets the requirements of both agreements. Members are not required to establish separate arrangements under this provision in addition to those established pursuant to the Rules of Origin Agreement in relation to the assessment of origin provided that the requirements of this Article are fulfilled.

- d. A Member may require that an applicant have legal representation or registration in its territory. To the extent possible, such requirements shall not restrict the categories of persons eligible to apply for advance rulings, with particular consideration for the specific needs of small and medium sized enterprises. These requirements shall be clear and transparent and not constitute a means of arbitrary or unjustifiable discrimination.

Implications for Information Management

1. A system of binding Advance Ruling helps in providing advance and predictable cargo release to the traders because it provides traders with the opportunity to settle with Customs any issue concerning the potential treatment of their goods at import and export before goods arrive at the point of entry or exit. The Agreement will specifically help avoid conditions that may cause dispute between traders and Customs on tariff headings and origin and could even extend to valuation, relief/exemptions, and tariff quota.
2. Consignments covered by a binding ruling would receive release based on advance pre-arrival electronic information if the information is integrated with the automated Customs clearance. The benefit of obtaining an advance binding ruling would be somewhat diminished if for each consignment, the trader must approach Customs with a paper copy of the ruling and to convince officers each time of the applicability of the ruling. There may be a way of inputting information contained in a binding ruling into electronic goods declarations in order to enable its automatic validation and application on eligible consignments, which aside from facilitation will address the possibility of manipulation.
3. Section 3.8 encourages Customs to make information on advance rulings publicly available where it is of significant interest to other interested parties, while taking into account the need for providing protection to a trader's commercially confidential information. When these rulings are made publicly available to trade on websites it provides further assurance regarding the general conditions under which the rulings would be applied. This provides an environment that is transparent and free of discretionary decision-making.
4. The WCO Data Model contains elements that allow traders to submit specific advance ruling information as part of goods declarations. These could be included as textual or coded additional statements [WCO ID Class 03A, WCO ID 225 & WCO ID 226]. Specifically with regard to rulings and decisions concerning standard classification of goods, WCO ID 448 may be used to report "Binding Tariff References", which may denote a national or a regional standard tariff classification of goods in the tariff nomenclature/statistics based on the Harmonized System.
5. Structured information regarding advance binding rulings provides a transparent basis for the trader to claim coverage for goods imported or exported under the ruling. Likewise, structured information also facilitates the application of the rulings in automated systems, providing full benefits to the traders who took pains to obtain them.

ARTICLE 4: APPEAL OR REVIEW PROCEDURES

1. Right to Appeal or Review

- 1.1. Each Member shall provide that any person to whom customs issues an administrative decision⁸ has the right, within its territory to:
- a. administrative appeal to or review by an administrative authority higher than or independent of the official or office that issued the decision; and/or
 - b. judicial appeal or review of the decision.
- 1.2. The legislation of each Member may require administrative appeal or review to be initiated prior to judicial appeal or review.
- 1.3. Members shall ensure that their appeal or review procedures are carried out in a non-discriminatory manner.
- 1.4. Each Member shall ensure that, in a case where the decision on appeal or review under subparagraph 1.1 a. is not given either i. within set periods as specified in its laws or regulations or ii. without undue delay, the petitioner has the right to either further appeal to or further review by the administrative authority or the judicial authority or any other recourse to the judicial authority⁹.
- 1.5. Each Member shall ensure that the person referred to in paragraph 1.1 is provided with the reasons for the administrative decision so as to enable such a person to have recourse to appeal or review procedures where necessary.
- 1.6. Each Member is encouraged to make the provisions of this Article applicable to an administrative decision issued by a relevant border agency other than customs.

Implications for Information Management

1. While there are no obligations arising from this article to put in place an ICT-based solution, Customs administrations will benefit from using purpose-built systems or off the shelf packages. Article 4 provides guarantees for an orderly and timely management of disputes arising from administrative decision making by Customs, and preferably also by other border agencies, through an appeal or review procedures.
2. There are a number of information management challenges associated with the management of disputes so that actions taken are timely, risks in handling documentation is reduced, efficiency is increased and costs are controlled. Quick and effective resolution of disputes hinges on bringing together and presenting the material facts of the cases, technical details and legal commentary and analyses.

⁸ An administrative decision in this Article means a decision with a legal effect that affects rights and obligations of a specific person in an individual case. It shall be understood that an administrative decision in this Article covers an administrative action within the meaning of Article X of the GATT 1994 or failure to take an administrative action or decision as provided for in a Member's domestic law and legal system. For addressing such failure, Members may maintain an alternative administrative mechanism or judicial recourse to direct the customs authority to promptly issue an administrative decision in place of the right to appeal or review under subparagraph 1.1 a.

⁹ Nothing in this paragraph shall prevent Members from recognizing administrative silence on appeal or review as a decision in favour of the petitioner in accordance with its laws and regulations.

3. The rigour with which documentation and data is collected at the time of raising a dispute determines how orderly and efficient the downstream processes will be. The process of filing appeal and reviews can be facilitated using online applications (e-appeals), where basic details of the appellant, grounds of appeal could be lodged. In the course of adjudication, appeal and review, there are a number of challenges such as management of case records, contacts, appointments, and notification. To support these functions, there are a number of software applications for case management, with special features to deal with legal cases. Besides, online journals and case law repositories are also available which could be equally useful in deciding appeals in a legally transparent and consistent manner. The WCO tools relating to information management and paperless regulatory environment can be equally useful in the efficient implementation of this article through the use of ICT.

ARTICLE 5: OTHER MEASURES TO ENHANCE IMPARTIALITY, NON-DISCRIMINATION AND TRANSPARENCY

1. Notifications for enhanced controls or inspections

Where a Member adopts or maintains a system of issuing notifications or guidance to its concerned authorities for enhancing the level of controls or inspections at the border in respect of foods, beverages or feedstuffs covered under the notification or guidance for protecting human, animal, or plant life or health within its territory, the following disciplines shall apply to the manner of their issuance, termination or suspension:

- a. each Member may, as appropriate, issue the notification or guidance based on risk.
- b. each Member may issue the notification or guidance so that it applies uniformly only to those points of entry where the sanitary and phytosanitary conditions on which the notification or guidance are based apply.
- c. each Member shall promptly terminate or suspend the notification or guidance when circumstances giving rise to it no longer exist, or if changed circumstances can be addressed in a less trade restrictive manner.
- d. when a Member decides to terminate or suspend the notification or guidance, it shall, as appropriate, promptly publish the announcement of its termination or suspension in a non-discriminatory and easily accessible manner, or inform the exporting Member or the importer.

2. Detention

A Member shall inform the carrier or importer promptly in case of detention of goods declared for importation, for inspection by Customs or any other competent authority.

3. Test Procedures

- 1.7. A Member may, upon request, grant an opportunity for a second test in case the first test result of a sample taken upon arrival of goods declared for importation shows an adverse finding.

- 1.8. A Member shall either publish, in a non-discriminatory and easily accessible manner, the name and address of any laboratory where the test can be carried out or provide this information to the importer when it is granted the opportunity under paragraph 3.1.
- 1.9. A Member shall consider the result of the second test in the release and clearance of goods, and, if appropriate, may accept the results of such test.

Implications for Information Management

1. Article 5.1 points to the need for rapid and effective communication within and between government agencies, and also between government agencies and traders. When an alert is sought to be issued owing to concerns for human, animal and plant health and safety, it needs to reach all stakeholders for timely and effective action. Likewise, when there is an “all clear” situation upon the expiration of the alert, it should also be promptly communicated.
2. In a dynamic global environment, threats and alerts can originate from many sources. To deal with them, there may be a need to build a globally accessible, instantaneous, ICT based communication system. An example of such a system is the EU EurRapid Alert System for Food and Feed (RASFF). This system was put in place to provide food and feed control authorities with an effective tool to rapidly interchange information about measures taken or to be taken responding to serious risks detected in relation to food or feed. The system helps EU members to take action in a quick and co-ordinated manner to a health threat caused by food or feed. The dissemination of information on alerts through a publicly accessible platform such as RASFF helps in building confidence among the stakeholders regarding the transparent and non-discriminatory nature of the system.
3. As regards notification of detention (Article 5.2), Response messages must build an option to indicate detention. Customs declaration processing systems may have status indicators called “Detained for further information” or “Detained for intervention by an ‘Other Government Agency’”. Such status-notifications indicate that goods have been facilitated for release but the Declarant is informed that the subject goods will undergo further intervention from a designated government agency.
4. Article 5.3 talks of the opportunity to be given to a trader for a second testing and transparency in regard to laboratories where tests are to be conducted.
5. Efficient management of information regarding authorized laboratories, samples, testing and test results is an important part of Customs clearance systems. Information management begins when an officer creates referrals for testing of goods. The rationale and purpose of testing is also captured. To maintain the integrity of the process of drawing (multiple) samples, officers ideally should have access to information regarding the safe and reliable methods of drawing, securing, sealing and assigning identification numbers to the samples. In collection and sending the samples for testing, the chain of custody information may also be captured. It also helps to have the results of testing, along with observations associated with tests. Such information should be available in an accessible data format for use in automated systems, to be used for providing release and clearance, and for subsequent analysis. The transaction cycle for managing samples ends when the tested samples are returned to the trader or otherwise duly disposed of.
6. ICT can also help in creating an online repository of test reports to facilitate clearance of goods where a periodic testing is required.

ARTICLE 6: DISCIPLINES ON FEES AND CHARGES IMPOSED ON OR IN CONNECTION WITH IMPORTATION AND EXPORTATION

1. General Disciplines on Fees and Charges Imposed on or in Connection with Importation and Exportation

- 1.1 The provisions of paragraph 6.1 shall apply to all fees and charges other than import and export duties and other than taxes within the purview of Article III of GATT 1994 imposed by Members on or in connection with importation or exportation of goods.
- 1.2 Information on fees and charges shall be published in accordance with Article 1 of this Agreement. This information shall include the fees and charges that will be applied, the reason for such fees and charges, the responsible authority and when and how payment is to be made.
- 1.3 An adequate time period shall be accorded between the publication of new or amended fees and charges and their entry into force except in urgent circumstances. Such fees and charges shall not be applied until information on them has been published.
- 1.4 Each Member shall periodically review its fees and charges with a view to reducing their number and diversity, where practicable.

2. Specific disciplines on Fees and Charges Imposed on or in Connection with Importation and Exportation

- 2.1 Fees and charges for customs processing:
- i. shall be limited in amount to the approximate cost of the services rendered on or in connection with the specific import or export operation in question; and
 - ii. are not required to be linked to a specific import or export operation provided they are levied for services that are closely connected to the customs processing of goods.

3. Penalty Disciplines

- 3.1 For the purpose of Article 6.3, the term "penalties" shall mean those imposed by a Member's customs administration for a breach of the Member's customs law, regulation, or procedural requirement.
- 3.2 Each Member shall ensure that penalties for a breach of a customs law, regulation, or procedural requirement are imposed only on the person(s) responsible for the breach under its laws.
- 3.3 The penalty imposed shall depend on the facts and circumstances of the case and shall be commensurate with the degree and severity of the breach.
- 3.4 Each Member shall ensure that it maintains measures to avoid:
- i. conflicts of interest in the assessment and collection of penalties and duties; and

- ii. creating an incentive for the assessment or collection of a penalty that is inconsistent with paragraph 3.3.

3.5 Each Member shall ensure that when a penalty is imposed for a breach of customs laws, regulations, or procedural requirements, an explanation in writing is provided to the person(s) upon whom the penalty is imposed specifying the nature of the breach and the applicable law, regulation or procedure under which the amount or range of penalty for the breach has been prescribed.

3.6 When a person voluntarily discloses to a Member's customs administration the circumstances of a breach of a customs law, regulation, or procedural requirement prior to the discovery of the breach by the customs administration, the Member is encouraged to, where appropriate, consider this fact as a potential mitigating factor when establishing a penalty for that person.

3.7 The provisions of this paragraph shall apply to the penalties on traffic in transit referred to in paragraph 3.1.

Implications for Information Management

1. A logical, non-discretionary and reasonable method of calculation renders itself to automated computation of fees and charges. If calculation of fees and charges is based only on information contained in goods declarations, then it would be possible to adopt automated methods of calculation. This provides transparency and predictability for the traders, helps them in their estimation of landed costs, and enables them to pay all charges prior to the arrival of goods at the place of importation and exportation and facilitate release on arrival.
2. It would be convenient for traders if the facility of electronic payment of duties and taxes is also extended to the payment of fees, charges, fines and penalties by developing integrated e-payment solutions.
3. The publication of new or amended fees and charges before their entry into force via website and/or ICT enabled forums assists traders to adjust and better comply from the date of implementation of the new measure.
4. Additionally, information management of Regional Trade Agreements which sometime include provisions which either abolish Customs fees and charges between Members or freeze and prohibit the introduction of new such measures, is important to ensure their efficient implementation.

ARTICLE 7: RELEASE AND CLEARANCE OF GOODS

1. Pre-arrival Processing

- 1.1. Each Member shall adopt or maintain procedures allowing for the submission of import documentation and other required information, including manifests, in order to begin processing prior to the arrival of goods with a view to expediting the release of goods upon arrival.
- 1.1. Members shall, as appropriate, provide for advance lodging of documents in electronic format for pre-arrival processing of such documents.

2. Electronic Payment

Each Member shall, to the extent practicable, adopt or maintain procedures allowing the option of electronic payment for duties, taxes, fees and charges collected by customs incurred upon importation and exportation.

3. Separation of Release from Final Determination of Customs Duties, Taxes, Fees and Charges

3.1 Each Member shall adopt or maintain procedures allowing the release of goods prior to the final determination of customs duties, taxes, fees and charges, if such a determination is not done prior to, or upon arrival, or as rapidly as possible after arrival and provided that all other regulatory requirements have been met.

3.2 As a condition for such release, a Member may require:

- a. payment of customs duties, taxes, fees and charges determined prior to or upon arrival of goods and a guarantee for any amount not yet determined in the form of a surety, a deposit or another appropriate instrument provided for in its laws and regulations; or
- b. a guarantee in the form of a surety, a deposit or other appropriate instrument provided for in its laws and regulations.

3.3 Such guarantee shall not be greater than the amount the Member requires to ensure payment of customs duties, taxes, fees and charges ultimately due for the goods covered by the guarantee.

3.4 In cases where an offence requiring imposition of monetary penalties or fines has been detected, a guarantee may be required for the penalties and fines that may be imposed.

3.5 The guarantee as set out in paragraphs 3.2 and 3.4 shall be discharged when it is no longer required.

3.6 Nothing in these provisions shall affect the right of a Member to examine, detain, seize or confiscate or deal with the goods in any manner not otherwise inconsistent with the Member's WTO rights and obligations.

4. Risk Management

4.1 Each Member shall, to the extent possible, adopt or maintain a risk management system for customs control.

4.2 Each Member shall design and apply risk management in a manner as to avoid arbitrary or unjustifiable discrimination, or disguised restrictions to international trade.

4.3 Each Member shall concentrate customs control and, to the extent possible other relevant border controls, on high risk consignments and expedite the release of low risk consignments. Each Member may also select, on a random basis, consignments for such controls as part of its risk management.

4.4 Each Member shall base risk management on assessment of risk through appropriate selectivity criteria. Such selectivity criteria may include, inter alia, HS code, nature and

description of the goods, country of origin, country from which the goods were shipped, value of the goods, compliance record of traders, and type of means of transport.

5. Post-clearance Audit

- 5.1 With a view to expediting the release of goods, each Member shall adopt or maintain post-clearance audit to ensure compliance with customs and other related laws and regulations.
- 5.2 Each Member shall select a person or a consignment for post-clearance audit in a risk-based manner, which may include appropriate selectivity criteria. Each Member shall conduct post-clearance audits in a transparent manner. Where the person is involved in the audit process and conclusive results have been achieved the Member shall, without delay, notify the person whose record is audited of the results, the person's rights and obligations and the reasons for the results.
- 5.3 Members acknowledge that the information obtained in post-clearance audit may be used in further administrative or judicial proceedings.
- 5.4 Members shall, wherever practicable, use the result of post-clearance audit in applying risk management.

6. Establishment and Publication of Average Release Times

- 6.1 Members are encouraged to measure and publish their average release time of goods periodically and in a consistent manner, using tools such as, inter alia, the WCO Time Release Study¹⁰.
- 6.2 Members are encouraged to share with the Committee their experiences in measuring average release times, including methodologies used, bottlenecks identified, and any resulting effects on efficiency.

7. Trade Facilitation Measures for Authorized Operators

- 7.1 Each Member shall provide additional trade facilitation measures related to import, export or transit formalities and procedures, pursuant to paragraph 7.3, to operators who meet specified criteria, hereinafter called authorized operators. Alternatively, a Member may offer such facilitation measures through customs procedures generally available to all operators and not be required to establish a separate scheme. The specified criteria shall be related to compliance, or the risk of non-, with requirements specified in a Member's laws, regulations or procedures. The specified criteria, which shall be published, may include:
 - a. an appropriate record of compliance with customs and other related laws and regulations;
 - b. a system of managing records to allow for necessary internal controls;

¹⁰ Each Member may determine the scope and methodology of such average release time measurement in accordance with its needs and capacity.

- c. financial solvency, including, where appropriate, provision of a sufficient security/guarantee; and
- d. supply chain security.

The specified criteria to qualify as an operator shall not:

- a. be designed or applied so as to afford or create arbitrary or unjustifiable discrimination between operators where the same conditions prevail; and
- b. to the extent possible, restrict the participation of small and medium-sized enterprises.

7.3 The trade facilitation measures provided pursuant to paragraph 7.1 shall include at least 3 of the following measures:¹¹

- a. low documentary and data requirements as appropriate;
- b. low rate of physical inspections and examinations as appropriate;
- c. rapid release time as appropriate;
- d. deferred payment of duties, taxes, fees and charges;
- e. use of comprehensive guarantees or reduced guarantees;
- f. a single customs declaration for all imports or exports in a given period; and
- g. clearance of goods at the premises of the authorized operator or another place authorized by customs.

7.4 Members are encouraged to develop authorized operator schemes on the basis of international standards, where such standards exist, except when such standards would be an inappropriate or ineffective means for the fulfillment of the legitimate objectives pursued.

7.5 In order to enhance the facilitation measures provided to operators, Members shall afford to other Members the possibility to negotiate mutual recognition of authorized operator schemes.

7.6 Members shall exchange relevant information within the Committee about authorized operator schemes in force.

8. Expedited Shipments

8.1 Each Member shall adopt or maintain procedures allowing for expedited release of at least those goods entered through air cargo facilities to persons that apply for such treatment, while maintaining customs control¹². If a Member employs criteria¹³ limiting who may apply, the Member may, in published criteria, require that the applicant shall, as conditions for qualifying for the application of the treatment described in paragraphs 8.2 a. – d. to its expedited shipments:

¹¹ A measure listed in sub-paragraphs a.-g. will be deemed to be provided to authorized operators if it is generally available to all operators.

¹² In cases where a Member has an existing procedure that provides the treatment in paragraph 8.2, this provision would not require that Member to introduce separate expedited release procedures.

¹³ Such application criteria, if any, shall be in addition to the Member's requirements for operating with respect to all goods or shipments entered through air cargo facilities.

- a. provide adequate infrastructure and payment of customs expenses related to processing of expedited shipments, in cases where the applicant fulfills the Member's requirements for such processing to be performed at a dedicated facility;
- b. submit in advance of the arrival of an expedited shipment the information necessary for release;
- c. be assessed fees limited in amount to the approximate cost of services rendered in providing the treatment described in paragraph 8.2 a. – d.;
- d. maintain a high degree of control over expedited shipments through the use of internal security, logistics, and tracking technology from pick-up to delivery;
- e. provide expedited shipment from pick-up to delivery;
- f. assume liability for payment of all customs duties, taxes, and fees and charges to the customs authority for the goods;
- g. have a good record of compliance with customs and other related laws and regulations;
- h. comply with other conditions directly related to the effective enforcement of the Member's laws, regulations and procedural requirements, that specifically relate to providing the treatment described in paragraph 8.2.

8.2 Subject to paragraphs 8.1 and 8.3, Members shall:

- a. minimize the documentation required for the release of expedited shipments in accordance with Article 10.1, and to the extent possible, provide for release based on a single submission of information on certain shipments;
- b. provide for expedited shipments to be released under normal circumstances as rapidly as possible after arrival, provided the information required for release has been submitted;
- c. endeavour to apply the treatment in sub-paragraphs 8.2 a. and b. to shipments of any weight or value recognizing that a Member is permitted to require additional entry procedures, including declarations and supporting documentation and payment of duties and taxes, and to limit such treatment based on the type of good, provided the treatment is not limited to low value goods, such as documents; and
- d. provide, to the extent possible, for a de minimis shipment value or dutiable amount for which customs duties and taxes will not be collected, aside from certain prescribed goods. Internal taxes, such as value added taxes and excise taxes, applied to imports consistently with Article III of the GATT 1994 are not subject to this provision.

8.3 Nothing in paragraphs 8.1 and 8.2 shall affect the right of a Member to examine, detain, seize, confiscate or refuse entry to goods, or to carry out post-clearance audits, including in connection with the use of risk management systems. Further, nothing in paragraphs 8.1 and 8.2 shall prevent a Member from requiring, as a condition for release, the

submission of additional information and the fulfillment of non-automatic licensing requirements.

9. Perishable Goods¹⁴

9.1 With a view to preventing avoidable loss or deterioration of perishable goods, and provided all regulatory requirements have been met, each Member shall:

- a. provide for the release of perishable goods under normal circumstances within the shortest possible time; and
- b. provide for the release of perishable goods, in exceptional circumstances where it would be appropriate to do so, outside the business hours of customs and other relevant authorities.

9.2 Each Member shall give appropriate priority to perishable goods when scheduling any examinations that may be required.

9.3 Each Member shall either arrange, or allow an importer to arrange, for the proper storage of perishable goods pending their release. The Member may require that any storage facilities arranged by the importer have been approved or designated by its relevant authorities. The movement of the goods to those storage facilities, including authorizations for the operator moving the goods, may be subject to the approval, where required, of the relevant authorities. The Member shall, where practicable and consistent with domestic legislation, upon the request of the importer, provide for any procedures necessary for release to take place at those storage facilities.

9.4 In cases of significant delay in the release of perishable goods, and upon written request, the importing Member shall, to the extent practicable, provide a communication on the reasons for the delay.

Implications for Information Management

1. In general, the provisions of Article 7 cannot be implemented without the effective use of ICT. The Revised Kyoto Convention, the SAFE Framework of Standards and the Immediate Release Guidelines provide clear guidance on the measures contained in Article 7. There are different sections in Kyoto ICT Guidelines devoted to each measure. The following table is useful in locating the relevant information.

¹⁴ For the purposes of this provision, perishable goods are goods that rapidly decay due to their natural characteristics, in particular in the absence of appropriate storage conditions.

Measure	Reference in Kyoto ICT Guidelines	Remarks
1. Pre-arrival Processing	Section 6.4	Process and data requirements have been covered in the SAFE Framework of Standards and the WCO Data Model
2. Electronic Payment	Section 6.10	The section in the ICT Guidelines deals with Revenue Accounting and covers electronic payment and electronic funds transfer
3. Separation of Release from Final Determination of Customs Duties, Taxes, Fees and Charges	Section 6.10	This section in the ICT Guidelines covers details regarding deferred payment and guarantee management
4. Risk Management	Section 6.8	This section in the ICT Guidelines covers selectivity and risk management. Besides, there is a wealth of information in the two volumes of the Risk Management Compendium
5. Post-clearance Audit	Section 13	The entire section in the ICT Guidelines focuses on the application of systems audit techniques both to external trading partner systems and to its own in-house applications. Besides, Guidelines for Post-Clearance Audit and Implementation Guidance provide very useful practical information provide more information on the use of ICT in the case selection and system audit.
6. Establishment and Publication of Average Release Times		Guide to Measure the Time Required for the Release of Goods (TRS) Version 2. The guide recommends a 3 phase approach: I. Preparation of the Study II. Collection and Recording of Data III. Analysis of Data and Conclusions In all three phases, it helps to use ICT. A new section on leveraging modern technologies in data collection, collation, and analysis for improving the TRS methodology will be added in the next version of the TRS Guide.
7. Trade Facilitation Measures for Authorized Operators	Section 6.15 & Section 9.3	The SAFE Package 2015 provides the entire technical know-how including the use of ICT in the establishment of AEO programme and its implementation in terms of efficient identification and grant of eligible benefits within a country and across borders through mutual recognition arrangements/agreements (MRAs)
8. Expedited Shipments		The WCO Immediate Release Guidelines that include data elements for the clearance and release of each category of shipments. This is supported by the WCO Data Model Information Package
9. Perishable Goods		Separate treatment on perishable goods is based on simplified procedures adopted on a

		number of commodities. It is possible to make such service requests in goods declarations for import and export using elements in the WCO Data Model.
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2. The challenges in the use of ICT in implementing this Article are numerous. Each of the nine measures listed in this Article is potentially a multi-year programme, with deep implication also for business processes and human resources management. Given the needs of the individual programmes, it would be desirable for a Member to develop a comprehensive ICT strategic plan.

ARTICLE 8: BORDER AGENCY COOPERATION

1. A Member shall ensure that its authorities and agencies responsible for border controls and procedures dealing with the importation, exportation and transit of goods cooperate with one another and coordinate their activities in order to facilitate trade.
2. Members shall, to the extent possible and practicable, cooperate on mutually agreed terms with other Members with whom they share a common border with a view to coordinating procedures at border crossings to facilitate cross-border trade. Such cooperation and coordination may include:
 - i. alignment of working days and hours;
 - ii. alignment of procedures and formalities;
 - iii. development and sharing of common facilities;
 - iv. joint controls;
 - v. establishment of one-stop border post control.

Implications for Information Management

1. Co-ordinated Border Management requires coordinated flows of information within and between organizations. Border Agencies within a government and across borders need to maintain and share up-to-date compliance information. Decisions to align working days and hours, and procedures and formalities should be reflected in the practical operations supported by ICT solutions leading to enhanced digital collaboration between and among border agencies. This would imply the movement towards Single Window solutions, which is a logical outcome of aligned procedures, coordinated and joint controls and one stop border facilities. Furthermore, interoperability of Single Windows would be a way forward to exchange regulatory information with partner government agencies. The WCO Compendiums on Coordinated Border Management and Single Window provide detailed ICT perspective in enhancing border agency cooperation.
2. Border agencies use a number of equipment types for enforcing controls at the border. There are many categories of equipment that can capture data. Therefore, links to electronic border protection equipment wherever feasible should be considered. To this end, interoperability of different non-intrusive inspection (NII) equipment from different manufacturers, as well as the exchange of images within and between Customs and other border agencies could be a potential way forward. The WCO together with relevant stakeholders is already working in this area to develop standards, with the 'unified file format' (UFF) being used as an interim solution for testing the sharing of images.

ARTICLE 9: MOVEMENT OF GOODS UNDER CUSTOMS CONTROL INTENDED FOR IMPORT

Each Member shall, to the extent practicable, and provided all regulatory requirements are met, allow goods intended for import to be moved within its territory under customs control from a customs office of entry to another customs office in its territory from where the goods would be released or cleared.

Implications for Information Management

This Article seeks to facilitate the transportation of goods for import within the Customs territory. The broad principles are covered under Specific Annex E of the RKC and the WCO Transit Handbook. Such movements are sometimes referred as internal transit. Information technology may be used to facilitate internal transits. Given below are a few examples:

- (i) Re-using manifest and declaration information at the gateway Customs office. With the reuse of such data, the need for a separate declaration for movement of goods in transit can be avoided and the accounting of imported cargo is facilitated,
- (ii) Managing guarantee (financial security and surety) including its immediate release upon completion of a transit procedure in an automated environment, and
- (iii) Using cargo tracking devices (e.g., GPS enabled e-seals) to monitor the secure and timely movement of goods within the Customs territory.

ARTICLE 10: FORMALITIES CONNECTED WITH IMPORTATION AND EXPORTATION AND TRANSIT

1. Formalities and Documentation Requirements

1.1. With a view to minimizing the incidence and complexity of import, export, and transit formalities and of decreasing and simplifying import, export and transit documentation requirements and taking into account the legitimate policy objectives and other factors such as changed circumstances, relevant new information and business practices, availability of techniques and technology, international best practices and inputs from interested parties, each Member shall review such formalities and documentation requirements, and, based on the results of the review, ensure, as appropriate, that such formalities and documentation requirements:

- a. are adopted and/or applied with a view to a rapid release and clearance of goods, particularly perishable goods;
- b. are adopted and/or applied in a manner that aims at reducing the time and cost of compliance for traders and operators;
- c. are the least trade restrictive measure chosen, where two or more alternative measures are reasonably available for fulfilling the policy objective or objectives in question; and
- d. are not maintained, including parts thereof, if no longer required.

1.2. The Committee shall develop procedures for sharing relevant information and best practices as appropriate.

2. Acceptance of Copies

- 2.1. Each Member shall, where appropriate, endeavour to accept paper or electronic copies of supporting documents required for import, export or transit formalities.
- 2.2. Where a government agency of a Member already holds the original of such a document, any other agency of that Member shall accept a paper or electronic copy, where applicable, from the agency holding the original in lieu of the original document.
- 2.3. A Member shall not require an original or copy of export declarations submitted to the customs authorities of the exporting Member as a requirement for importation.¹⁵

3. Use of International Standards

- 3.1. Members are encouraged to use relevant international standards or parts thereof as a basis for their importation, exportation or transit formalities and procedures except as otherwise provided for in this Agreement.
- 3.2. Members are encouraged to take part, within the limits of their resources, in the preparation and periodic review of relevant international standards by appropriate international organizations.
- 3.3. The Committee shall develop procedures for the sharing by Members of relevant information, and best practices, on the implementation of international standards, as appropriate. The Committee may also invite relevant international organizations to discuss their work on international standards. As appropriate, the Committee may identify specific standards that are of particular value to Members.

4. Single Window

- 4.1. Members shall endeavour to establish or maintain a single window, enabling traders to submit documentation and/or data requirements for importation, exportation or transit of good through a single entry point to the participating authorities or agencies. After the examination by the participating authorities or agencies of the documentation and/or data, the results shall be notified to the applicants through the single window in a timely manner.
- 4.2. In cases where documentation and/or data requirements have already been received through the single window, the same documentation and/or data requirements shall not be requested by participating authorities or agencies except in urgent circumstances and other limited exceptions which are made public.
- 4.3. Members shall notify to the Committee the details of operation of the single window.
- 4.4. Members shall, to the extent possible and practical, use information technology to support the single window.

¹⁵ Nothing in this paragraph precludes a Member from requiring documents such as certificates, permits or licenses as a requirement for the importation of controlled or regulated goods

5. Pre-shipment Inspections

- 5.1. Members shall not require the use of pre-shipment inspections in relation to tariff classification and customs valuation.
- 5.2. Without prejudice to the rights of Members to use other types of pre-shipment inspection not covered by paragraph 5.1, Members are encouraged not to introduce or apply new requirements regarding their use.¹⁶

6. Use of Customs Brokers

- 6.1. Without prejudice to the important policy concerns of some Members that currently maintain a special role for customs brokers, from the entry into force of this agreement Members shall not introduce the mandatory use of customs brokers.
- 6.2. Each Member shall notify and publish its measures on the use of customs brokers. Any subsequent modifications thereof shall be notified to the Committee and published promptly.
- 6.3. With regard to the licensing of customs brokers, Members shall apply rules that are transparent and objective.

7. Common Border Procedures and Uniform Documentation Requirements

- 7.1. Each Member shall, subject to paragraph 7.2, apply common customs procedures and uniform documentation requirements for release and clearance of goods throughout its territory.
- 7.2. Nothing in this Article shall prevent a Member from:
- a. differentiating its procedures and documentation requirements based on the nature and type of goods, or their means of transport;
 - b. differentiating its procedures and documentation requirements for goods based on risk management;
 - c. differentiating its procedures and documentation requirements to provide total or partial exemption from import duties or taxes;
 - d. applying electronic filing or processing; or
 - e. differentiating its procedures and documentation requirements in a manner consistent with the Agreement on Sanitary and Phytosanitary Measures.

8. Rejected Goods

- 8.1. Where goods presented for import are rejected by the competent authority of a Member on account of their failure to meet prescribed sanitary or phytosanitary regulations or technical regulations, the Member shall, subject to and consistent with its laws and regulations, allow the importer to re-consign or to return the rejected goods to the exporter or another person designated by the exporter.

¹⁶ This sub-paragraph refers to pre-shipment inspections covered by the Pre-shipment Inspection Agreement, and does not preclude pre-shipment inspections for SPS purposes.

When such an option is given and the importer fails to exercise it within a reasonable period of time, the competent authority may take a different course of action to deal with such non-compliant goods.

9. Temporary Admission of Goods /Inward and Outward Processing

a. Temporary Admission of Goods

Each Member shall allow, as provided for in its laws and regulations, goods to be brought into a customs territory conditionally relieved, totally or partially, from payment of import duties and taxes if such goods are brought into a customs territory for a specific purpose, are intended for re-exportation within a specific period, and have not undergone any change except normal depreciation and wastage due to the use made of them.

b. Inward and Outward Processing

- I. Each Member shall allow, as provided for in its laws and regulations, inward and outward processing of goods. Goods allowed for outward processing may be re-imported with total or partial exemption from import duties and taxes in accordance with the Member's laws and regulations in force.
- II. For the purposes of this Article, the term "inward processing" means the Customs procedure under which certain goods can be brought into a Customs territory conditionally relieved totally or partially from payment of import duties and taxes, or eligible for duty drawback, on the basis that such goods are intended for manufacturing, processing or repair and subsequent exportation.
- III. For the purposes of this Article, the term "outward processing" means the Customs procedure under which goods which are in free circulation in a Customs territory may be temporarily exported for manufacturing, processing or repair abroad and then reimported.

Implications for Information Management

1. To implement paras 1, 2 and 3 of this Article, Members should pursue the path of simplification of business processes, reduced requirements for information and documentation, and standardization of data elements. The WCO Data Model was developed precisely for this purpose, and during the implementation of this Agreement, Members have an opportunity to take measures to adopt this WCO instrument. Implementation of para 2 gives an opportunity for Customs administrations to implement comprehensive dematerialization of documents including supporting documents. The WCO Recommendation on Dematerialization of Supporting documents provides adequate guidance. Together with Single Window, the measures listed in this Article provide for an automated environment for the processing of cargo at the border. The acceptance of copies of documents as envisaged in para 2 is likely to be more efficient and foolproof in an electronic environment, potentially having direct access to databases of relevant authorities. Para 4 categorically encourages the use of information technology to support the single window.

2. As regards para 7, it is mainly through ICT-based solutions that it can effectively be ensured that Customs procedures and documentation requirements are applied uniformly to all goods.
3. Likewise, inward and outward processing processes (para 9) can be further enhanced with the use of ICT, particularly when it comes to the grant of full or partial exemption and efficient identification and correlation of imported and exported consignments and vice versa.
4. From the perspective of developing the ICT architecture and strategic ICT planning, this is a significant Article. Members should carefully consider the development of multi-annual programmes to implement the provisions of this Article.
5. The programme to manage the overall engagement with Customs Brokers will also benefit from the use of ICT. It is perhaps advantageous to use ICT-based solutions to maintain Customs Brokers profiles, their revenue accounting records, their compliance history, and profiles of individuals employed by the brokers to operate Customs procedures and access Customs and/or Single Window facilities. Depending upon the usage of Brokers in a country, consignments are cleared based on information supplied by the Brokers. It is, therefore, necessary to track and monitor the level of training, competencies and capacities of Customs brokers and their employees from a risk management perspective.

ARTICLE 11: FREEDOM OF TRANSIT

1. Any regulations or formalities in connection with traffic in transit imposed by a Member shall not:
 - a. be maintained if the circumstances or objectives giving rise to their adoption no longer exist or if the changed circumstances or objectives can be addressed in a reasonably available less trade restrictive manner,
 - b. be applied in a manner that would constitute a disguised restriction on traffic in transit.
2. Traffic in transit shall not be conditioned upon collection of any fees or charges imposed in respect of transit, except the charges for transportation or those commensurate with administrative expenses entailed by transit or with the cost of services rendered.
3. Members shall not seek, take or maintain any voluntary restraints or any other similar measures on traffic in transit. This is without prejudice to existing and future national regulations, bilateral or multilateral arrangements related to regulating transport consistent with WTO rules.
4. Each Member shall accord to products which will be in transit through the territory of any other Member treatment no less favourable than that which would be accorded to such products if they were being transported from their place of origin to their destination without going through the territory of such other Member.
5. Members are encouraged to make available, where practicable, physically separate infrastructure (such as lanes, berths and similar) for traffic in transit.

6. Formalities, documentation requirements and customs controls, in connection with traffic in transit, shall not be more burdensome than necessary to:
 - a. identify the goods; and
 - b. ensure fulfillment of transit requirements
7. Once goods have been put under a transit procedure and have been authorized to proceed from the point of origination in a Member's territory, they will not be subject to any customs charges nor unnecessary delays or restrictions until they conclude their transit at the point of destination within the Member's territory.
8. Members shall not apply technical regulations and conformity assessment procedures within the meaning of the Agreement on Technical Barriers to Trade on goods in transit.
9. Members shall allow and provide for advance filing and processing of transit documentation and data prior to the arrival of goods.
10. Once traffic in transit has reached the customs office where it exits the territory of the Member, that office shall promptly terminate the transit operation if transit requirements have been met.
- 11.1 Where a Member requires a guarantee in the form of a surety, deposit or other appropriate monetary or non-monetary¹⁷ instrument for traffic in transit, such guarantee shall be limited to ensuring that requirements arising from such traffic in transit are fulfilled.
- 11.2 Once the Member has determined that its transit requirements have been satisfied, the guarantee shall be discharged without delay.
- 11.3 Each Member shall, in a manner consistent with its laws and regulations, allow comprehensive guarantees which include multiple transactions for same operators or renewal of guarantees without discharge for subsequent consignments.
- 11.4 Each Member shall make available to the public the relevant information it uses to set the guarantee, including single transaction and, where applicable, multiple transaction guarantee.
- 11.5 Each Member may require the use of customs convoys or customs escorts for traffic in transit only in circumstances presenting high risks or when compliance with customs laws and regulations cannot be ensured through the use of guarantees. General rules applicable to customs convoys or customs escorts shall be published in accordance with Article 1.
12. Members shall endeavour to cooperate and coordinate with one another with a view to enhance freedom of transit. Such cooperation and coordination may include, but is not limited to an understanding on:
 - i. charges;
 - ii. formalities and legal requirements; and
 - iii. the practical operation of transit regimes.

¹⁷ Nothing in this provision shall preclude a Member from maintaining existing procedures whereby the mean of transport can be used as a guarantee for traffic in transit

13. Each Member shall endeavour to appoint a national transit coordinator to which all enquiries and proposals by other Members relating to the good functioning of transit operations can be addressed.

Implications for Information Management

1. While this Article seeks to reiterate the rights of transit, which is established in the GATT, its efficient and effective implementation would be greatly facilitated by the implementation of an ICT-powered transit management systems. ICT-based systems help in the lodgement of documentation under a transit regime and facilitate the timely flow of information to all relevant Customs offices. Use of electronic information helps in the sharing of critical Customs information in real time. The effectiveness of control in transit operations is enhanced when participating countries exchange of electronic data on goods in transit.
2. Transit declaration data, when submitted electronically, can also be re-used as advance cargo and pre-arrival reporting. This information sharing enables Customs to carry out prior risk assessment and may facilitate release upon arrival. In any transit system, data matching of entry and exit of transit consignments is an important function, which can be performed effectively. It is also linked to effective management of transit guarantees including the immediate automated release of guarantees upon the completion of the transit process. In general, the use of IT in transit systems helps in reducing the administrative burden on traders, speeds-up border processes and reduces potential fraud.
3. The use of real-time tracking devices (including GPS enabled e-seals) helps in further enhancing the security and compliance aspects of transit operations. Real-time tracking services are being used in a number of transit regimes in different regions of the world.
4. The WCO Transit Handbook includes guidance and related examples/practices on the use of ICT in the efficient management of transit procedures.

ARTICLE 12: CUSTOMS COOPERATION

1. Measures Promoting Compliance and Cooperation

- 1.1. Members agree on the importance of ensuring that traders are aware of their compliance obligations, encouraging voluntary compliance to allow importers to self-correct without penalty in appropriate circumstances, and applying compliance measures to initiate stronger measures for non-compliant traders.¹⁸
- 1.2. Members are encouraged to share information on best practices in managing customs compliance, including through the Committee on Trade Facilitation. Members are encouraged to cooperate in technical guidance or assistance in building capacity for the purposes of administering compliance measures, and enhancing their effectiveness.

¹⁸ Such activity has the overall objective of lowering the frequency of non-compliance, and consequently reducing the need for exchange of information in pursuit of enforcement.

2. Exchange of Information

- 2.1. Upon request, and subject to the provisions of this Article, Members shall exchange the information set out in paragraph 6 b. and/or c. for the purpose of verifying an import or export declaration in identified cases where there are reasonable grounds to doubt the truth or accuracy of the declaration.
- 2.2. Each Member shall notify to the Committee the details of its contact point for the exchange of this information.

3. Verification

A Member shall make a request for information only after it has conducted appropriate verification procedures of an import or export declaration and after it has inspected the available relevant documentation.

4. Request

- 4.1. The requesting Member shall provide the requested Member with a written request, through paper or electronic means in a mutually agreed WTO or other language, including:
 - a. the matter at issue including, where appropriate and available, the serial number of the export declaration corresponding to the import declaration in question;
 - b. the purpose for which the requesting Member is seeking the information or documents, along with the names and contact details of the persons about which the request relates, if known;
 - c. where required by the requested Member, provide confirmation¹⁹ of the verification where appropriate.
 - d. the specific information or documents requested;
 - e. the identity of the originating office making the request;
 - f. reference to provisions of the requesting Member's domestic law and legal system that govern the collection, protection, use, disclosure, retention and disposal of confidential information and personal data;
- 4.2. If the requesting Member is not in a position to comply with any of the sub-paragraphs of 4.1, it shall specify this in the request.

5. Protection and confidentiality

- 5.1. The requesting Member shall, subject to paragraph 5.2:
 - a. hold all information or documents provided by the requested Member strictly in confidence and grant at least the same level of such protection and confidentiality as that provided under the domestic law and legal system of the requested Member as described by it under paragraphs 6.1 b. and 6.1 c.;

¹⁹ This may include pertinent information on the verification conducted under paragraph 12.3. Such information shall be subject to the level of protection and confidentiality specified by the Member conducting the verification.

- b. provide the information or documents only to the customs authorities dealing with the matter at issue and use the information or documents solely for the purpose stated in the request unless the requested Member agrees otherwise in writing;
- c. not disclose the information or documents without the specific written permission of the requested Member;
- d. not use any unverified information or documents from the requested Member as the deciding factor towards alleviating the doubt in any given circumstance;
- e. respect any case-specific conditions set out by the requested Member regarding retention and disposal of confidential information or documents and personal data; and
- f. upon request, inform the requested Member of any decisions and actions taken on the matter as a result of the information or documents provided.

5.2. A requesting Member may be unable under its domestic law and legal system to comply with any of the sub-paragraphs of 5.1. If so, the requesting Member shall specify this in the request.

5.3. The Requested Member shall treat any request, and verification information, received under paragraph 4 with at least the same level of protection and confidentiality accorded by the requested member to its own similar information.

6. Provision of information

6.1. Subject to the provisions of this article, the requested Member shall promptly:

- a. respond in writing, through paper or electronic means;
- b. provide the specific information as set out in the import or export declaration, or the declaration, to the extent it is available, along with a description of the level of protection and confidentiality required of the requesting Member;
- c. if requested, provide the specific information as set out in the following documents, or the documents, submitted in support of the import or export declaration, to the extent it is available: commercial invoice, packing list, certificate of origin and bill of lading, in the form in which these were filed, whether paper or electronic, along with a description of the level of protection and confidentiality required of the requesting Member;
- d. confirm that the documents provided are true copies;
- e. provide the information or otherwise respond to the request, to the extent possible, within 90 days from the date of the request.

6.2. The requested Member may require, under its domestic law and legal system, an assurance prior to the provision of information that the specific information will not be used as evidence in criminal investigations, judicial proceedings, or in non-customs proceedings without the specific written permission of the requested Member. If the requesting Member is not in a position to comply with this requirement it should specify this to the requested Member.

7. Postponement or refusal of a request

- 7.1. A requested Member may postpone or refuse part or all of a request to provide information, and shall so inform the requesting Member of the reasons for doing so, where:
- a. it would be contrary to the public interest as reflected in the domestic law and legal system of the requested Member.
 - b. its domestic law and legal system prevents the release of the information. In such case it shall provide the requesting Member with a copy of the relevant, specific reference.
 - c. the provision of the information would impede law enforcement or otherwise interfere with an on-going administrative or judicial investigation, prosecution or proceeding.
 - d. the consent of the importer or exporter is required by domestic law and legal system that govern the collection, protection, use, disclosure, retention and disposal of confidential information or personal data and that consent is not given.
 - e. the request for information is received after the expiration of the legal requirement of the requested Member for the retention of documents.
- 7.2. In the circumstances of paragraph 4.2, 5.2 or 6.2 execution of such a request shall be at the discretion of the requested Member.

8. Reciprocity

If the requesting Member is of the opinion that it would be unable to comply with a similar request in case such a request was made by the requested Member, or if it has not yet implemented this Article, it shall state that fact in its request. Execution of such a request shall be at the discretion of the requested Member.

9. Administrative burden

- 9.1. The requesting Member shall take into account the associated resource and cost implications for the requested Member's administration in responding to requests for information. The requesting Member shall consider the proportionality between its fiscal interest in pursuing its request and the efforts to be made by the requested Member in providing the information.
- 9.2. If a requested Member receives an unmanageable number of requests for information, or a request for information of unmanageable scope from one or more requesting Member(s), and is unable to meet such requests within a reasonable time it may request one or more of the requesting Member(s) to prioritize with a view to agreeing on a practical limit within its resource constraints. In the absence of a mutually-agreed approach, the execution of such requests shall be at the discretion of the requested Member based on the results of its own prioritization.

10. Limitations

Requested Members shall not be required to:

- a. modify the format of their import or export declarations or procedures;
- b. call for documents other than those submitted with the import or export declaration as specified in paragraph 6 c.;
- c. initiate enquiries to obtain the information;
- d. modify the period of retention of such information;
- e. introduce paper documentation where electronic format has already been introduced;
- f. translate the information;
- g. verify the accuracy of the information;
- h. provide information that would prejudice the legitimate commercial interests of
- i. particular enterprises, public or private.

11. Unauthorized use or disclosure

11.1. In the event of any breach of the conditions of use or disclosure of information exchanged under this Article, the requesting Member that received the information shall promptly communicate the details of such unauthorized use or disclosure to the requested Member that provided the information, and:

- a. take necessary measures to remedy the breach;
- b. take necessary measures to prevent any future breach; and
- c. notify the requested Member of the measures taken under sub-paragraphs a. and b. above.

11.2. The requested Member may suspend its obligations to the requesting Member under this Article until the measures set out in paragraph 11.1 have been taken.

12. Bilateral and regional agreements

12.1. Nothing in this Article shall prevent a Member from entering into or maintaining a bilateral, plurilateral, or regional agreement for sharing or exchange of customs information and data, including on a secure and rapid basis such as on an automatic basis or in advance of the arrival of the consignment.

12.2. Nothing in this Article shall be construed to alter or affect Members' rights or obligations under such bilateral, plurilateral or regional agreements or to govern the exchange of customs information and data under such other agreements.

Implications for Information Management

1. The WCO Feasibility Study on Globally Networked Customs (GNC) captures the implications for information management arising from the exchange of information between countries. This Article defines the rights and obligations of members and the conditions under which information exchange could occur. The WCO Feasibility Study contains detailed discussions regarding ICT Architecture, data standards, interoperability challenges, security concerns and data management issues (storage access and retention).
 2. The Feasibility Study put forth the concept of Utility Blocks, which represent the standardized way of effecting a purposeful exchange of information between Customs administrations. Members would gain by following the process under which the WCO is developing and standardizing the Utility Blocks in the current proof-of-concept phase. One potential course to initiate implementation of the Article could be developing a tailor-made Utility Block for the exchange of stipulated information under the enforcement track of GNC, by interested and willing Members.
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